ADVANCED

MANAGEMENT

SEPTEMBER 1958
VOLUME 23 No. 9

Announcing the

1958 Annual Fall S.A.M Management Conference

PROGRESS IN MANAGEMENT FOR PROFIT AND GROWTH

(See page 2 for Program)

In This Issue . . .

The Individual's Program For Self-Development
George W. Bricker, Jr.

Is Military Organization Really Better?
Waino W. Suojanen

Basic Standards—Management's Tool
R. V. Flint

The Engineer As Citizen
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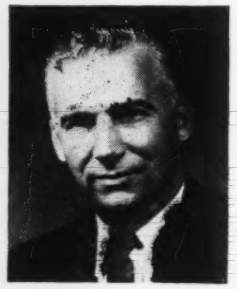

S.A.M Is For You

MOST OF US like to hear ourselves talk. When we can't do the talking, most of us like to listen to a speaker who tells us what we already know, and what we already believe. It is pleasant but not particularly profitable to spend our time augmenting our strengths, and proving our convictions. What we need is to add new and different viewpoints.

We can, through some chapter in the Society for Advancement of Management. This organization is unique. First, because of its policy of decentralization. Its National Office exists to help the individual chapters, not to control them.

Second, our Society has no specialty. We have no one subject, no one philosophy with which to attract those who are interested in the narrow confines of a single phase of Management. We have no well-travelled road map to Chapter success.

We bring together small groups of people in many locations, discussing a wide variety of topics. We may even have one Chapter taking a completely opposite view from another Chapter.

There is, however, not much danger of our program falling into a rut. The person who regularly attends and participates in the functions of our Society, either on a Chapter level or on a National level, is forced to consider the problems, and to try to understand the viewpoints of every phase of Management. This is a difficult but challenging concept.

Our Society has for many years been contributing to one of the critical requirements of executive leadership. We are exposing the specialist to the total Management problem. We are seeking the development of Management people who are considerate of the views of the specialist, but who are required to fuse specialization in a Management team capable of producing a saleable product at an attractive price.

To us has fallen the task of developing Professional Managers—the men who guide the specialists so that they make a contribution to a Managerial achievement.

There may be places where you can find a better course of instruction in techniques. However, there is no place where you can gain the broader experience necessary for Managerial success than in a Chapter of S.A.M. Try it. It is a rewarding experience.

James E. Newsome
2nd Vice President
Membership

The Individual's Program For Self-Development

by George W. Bricker, Jr.,
Vice President, Organization Planning
Celanese Corporation of America
New York

WE are all interested in the development of men for managerial responsibilities whether we are part of the management of relatively large businesses, the owners and operators of relatively small businesses, or just individuals who are somewhere on the organization ladder. Our reasons may be different; the urgency may appear different; we may see the need for development in different lights; in many cases we may not even be conscious of the need for manager development although we want the benefits which flow from that development.

Those who are not conscious of the need for development fall generally into three classes: (a) Those owners of businesses, whether large or small, who still run one-man shows, and who think of their "managers" as persons who will get done promptly what they are told to do by the boss. All they need are good "yes men." (b) Those managers who take the attitude that their business has always found managers in the past when the need arose, and will continue to do so. (c) Those relatively few individuals who expect the benefits of increasing income and expanding prestige to come more or less automatically with length of service, and see no reason for them to do anything about their own advancement.

It is true that there have been people in the past, and there will be people in the future, who are fortuitously picked up and pushed along the ladder of apparent success. I say "apparent" because in some of those cases the prestige and the income are achieved while the job itself may be poorly done. So long as the higher management which pushed such an individual along is satisfied with the job done, either because it did not expect anything better or because it finds it too embarassing to correct its own mistake, the individual may be blissfully happy in his apparent success. But a change in the management above him, whether in the ownership of the business, or merely in a level of management between him and the owners, and the incompetent individual may be in for a rough time if he is inadequate to the job to which he has risen.

Thus it should be evident that the individual who wants to grow in responsibility must see to it himself that he is continuously developing his abilities, whether technical or strictly managerial, so that when the opportunity presents itself, either competitively or by good fortune, he will be prepared to accept the responsibilities and perform well the duties of the job which is open, or to which he is fortuitously assigned.

Maybe you work for a company which has an extensive program of manager development, such as General Electric, or a growing sympathy for and interest in helping capable individuals develop their management potential, such as Celanese. On the other hand, you may work for a company which gives little thought to such matters, merely waiting until there is a managerial vacancy to fill, then picking a man on the spur of the moment.

Regardless of which type of company you work for, it is *your* responsibility to yourself and to your family to plan for and see that you are continuously

MR. BRICKER joined the Celanese Corporation of America in 1952. From 1936 to 1952 Mr. Bricker was Principal of Robert Heller & Associates, Cleveland. He did Public Utility consulting in New York and Boston from 1925 to 1936. Management development has been Mr. Bricker's primary concern since he joined the Celanese Corporation. While with Robert Heller & Associates he had extensive experience in the fields of management organization and industrial marketing.

developing the skills and abilities necessary for the particular goal or goals which you have set for yourself. It is *you* who must establish your own goals. It is *you* who must determine the philosophy of business life which will enable you to achieve your goals. It is *you* who must establish a program of self-improvement, and implement that program for yourself.

Regardless of how much help your company or your boss may give you, or make available to you, in establishing a program and implementing that program it is *you* and *you alone* who must take the responsibility for seeing that you grow continuously in ability.

Now, let's turn to some of the specifics. I shan't mention those things which a man should do to increase his technical knowledge of his own specialty, or of other specialties which he feels a need for embracing. Rather, I shall confine myself to the development of managerial abilities.

Don't get confused about the term "managerial." Maybe some of you don't want to be managers in the sense of a plant manager, or a sales manager, or a general manager. You may say "I'm interested only in operating in a staff capacity." Let us assume, however, that you want to have some staff *responsibility*, not be just a pencil pusher for someone else.

If you have staff responsibility you need managerial ability to direct and manage whatever people report directly to you, whether it be 1 or 20. You need managerial know-how to understand the problems faced by the man or men you are advising.

You need managerial "savvy" to be able to help the men you advise to get the most out of your recommendations. In other words, more often than not you must subtly coach the line manager in ways to achieve the greatest benefit from plans you are proposing he carry out.

ONE of the biggest problems all of us have in growing to be managers in the middle or upper strata of management is the narrowing field of responsibility in most management positions today. Let me explain what I mean.

The rate of growth of American business in the last quarter century has been so rapid that the character of industrial organizations has changed greatly. No longer can the large business (say one with sales volume of $100,000,000) be run by a small group of men who know everything that is going on, and have sufficient knowledge of all surrounding circumstances to make decisions unassisted. The growing move toward decentralization of authority makes this especially true of top management. But the problem is not confined to *top* management, for in many large companies today the individual divisions of the business are *themselves* so large that their own divisional activities are spread, functionally and geographically, over wide areas.

The net result of this increase in size is that the layers and segments of management have increased in number, and the responsibilities of each individual, in all but the top layer, have been narrowed.

Thus, in 1929 a typical company, doing a 10 million dollar business all from one plant, may have been run by a President, a Treasurer, a Vice President c/o Sales and a Vice President c/o Manufacturing, who, with their assistants, were familiar with all phases of the company's operations. A quarter century later the same company, now doing a *100* million dollar business, although run at the top by a President, an Executive Vice President, a Treasurer, and a Planning Officer, may be divided into four divisions, each in charge of a General Manager who has a Sales Manager, a couple of Plant Managers and the necessary auxiliary services reporting to him.

Today those General Managers know very little about each other's products, and nothing about problems of finance; the Sales Managers each know one group of products and probably little about plant management; and the assistants to the Sales Managers are most likely specialists on individual product lines.

Each plant manager today may have as *big* a responsibility as the Vice President c/o Manufacturing had in 1929, judged in terms of plant investment, number of employees, and value of product; but he does *not* have the *breadth* of responsibility or the over-all *knowledge* of the business that the Vice President c/o Manufacturing had in 1929.

This same *narrowing of the field of responsibility* applies throughout the organization. It is often evident today in small companies, as well as in larger companies. More *specilization* is generally required of executives today if they are to keep abreast of developments in their particular fields, and meet the competition of larger firms with many specialists. Since there are *no more hours* per day in 1956 than there were in 1929, the job of knowing all that is necessary for successful operation of a business must be divided between more people.

Thus, the real problem in development of managers for the middle and upper levels of management is that of broadening the knowledge and experience of department heads at every level, so as to build a real reserve of potential management material. This applies to men in *staff* departments as well as to men in *line* departments.

MANAGEMENT development, however, is not something which can be served up on a silver platter. It is a *day-by-day* process, and is a prime responsibility of *each individual*, whether he be manager of a division, a department, or a section; or just a young man with his eye on the future.

Your own goals and philosophies of business life you will have to decide for your individual selves. Space does not permit going into the why and how of those decisions here. We can, however, talk about some of the qualifications for a good executive. A hundred or more items could be put down on such a list, but here are sixteen important ones:

1. Knowledge of the activity
2. Ability to exercise independent judgment
3. Recognition of the need for adequate facts on which to base decisions
4. Ability to initiate action and get results
5. Getting along with and getting results through people
6. Breadth of vision
7. Drive, aggressiveness — all the factors which make intelligence and vision effective
8. Ability to delegate authority
9. Ability to make timely decisions
10. Good judgment
11. Sincerity
12. Sense of humor
13. Self-confidence
14. Ability to listen and learn
15. Setting a good example
16. Ability to withstand frustration

A wise man is not as certain of anything as a fool is of everything.

Now let me quote what some successful executives have said about the attributes of a good executive:

Crawford H. Greenewalt, President of duPont: *"An executive is good when he can make a smoothly functioning team out of people with the many different skills required in the operation of a modern business. His most important function is to reconcile, to coordinate, to compromise, and to appraise the various viewpoints and talents under his direction to the end that each individual contributes his full measure to the business at hand."*

Clarence B. Randall, President of Inland Steel: *"The outstanding characteristic of the good executive is his capacity for reaching decisions—for making up his mind and then translating thought into action."*

Charles P. McCormick, President of McCormick & Company: *"A real leader (who) has the ability to get others to work willingly through his influence and example."*

John M. Fox, President of Minute Maid Corporation: *"1.* Creative ability—*Business is looking for men who can think. Ideas are the lifeblood of an organization. To be a good manager, a man must have the ability to think creatively, constructively, and clearly. The fast-moving, continually changing pattern of the modern competitive business world demands this quality if success and satisfactory profits are to be realized. "2.* Judgment — *This is synonymous with good sense. Men who are to be leaders must be men who can make sound and wise decisions. Countless fiascos have come about because someone in a key position failed to use good judgment, forgot the fundamentals of simple common sense. "3.* Administrative skill — *The good executive must be able to foresee the needs of his operation, to forecast its requirements in manpower, materials, money, and time. He must have the ability to resolve these needs into a practical and understandable program. This is, perhaps, the unglamorous side of the manager's job. It requires painstaking concern over a multitude of details; it requires concentration and vigilance and, above all, it requires an orderliness of mind and method. And it is often the area in which many otherwise high-caliber executives are weakest. "4.* A positive attitude—*A manager must be optimistic; he must impart confidence and enthusiasm. The business world of today and tomorrow wants leaders who can inspire others. This positive approach, however, cannot be merely a pose; it must be sincere and deeply felt. A company, an operation within a company, a project within an operation—all must be directed by a manager who has this all-abiding faith in his work and objectives. A discouraged and despondent executive can send the morale of 100 or more employees into the gutter. A worried-looking boss can send a wave of fear rolling through an organization that may start a chain of resignations among the best people and a work slowdown among many others. "5.* Courage —*in nearly every business decision someone must have the courage to take positive action without having at hand all the facts and data that could make that decision relatively risk-free. To wait for all the necessary information may mean missing an opportunity; it may mean that a more aggressive competitor will take the all-important initiative. Timing in business affairs is vital, so very often a manager must courageously stick his neck out and decide to do something—now!*

"It also takes courage to delegate. To give a subordinate the authority to perform a function, to stand aside and let him make a decision—a decision that may turn out to be wrong—requires courage. It takes courage to be tough, to say "no" to requests that come daily to a manager's desk, when it's much pleasanter to acquiesce and to be thought a nice guy.

"It takes courage to ask your superior for advice. Many executives have the idea that, once given a responsibility, it will be viewed as a sign of weakness if they admit they are stumped now and then.

"It takes courage to disagree with a superior. It takes even more guts for a manager to take action without a precedent or company policy to back him up. "6. Character—*Managers must be men of high integrity. The honesty, the sincerity, and the moral posture of a top executive must be unquestionable. This is a common quality of all real leaders. They may have the other five characteristics in greater or lesser degree, but on this quality there can be no compromise."*

John R. Suman of Houston *summed the matter up well when he said: "Actually, these and scores of other specifications that one might cite all boil down to pretty much the same thing: A good executive must be solidly grounded in the skills of management. These skills may be relatively few or quite numerous, depending on the nature of the business, but some are more important than others—some are basic to the management profession. In most cases these vital skills can be broken down into just three broad categories: technical skill, human skill and conceptual skill.*

"This 'three-skill approach,' a concept developed by Professor Robert L. Katz of Dartmouth's Amos Tuck School of Business Administration, means simply this:

"The good executive, the good manager, the good administrator, must—*to a certain extent, at least—be a specialist. He must have a knowledge and understanding of the methods, procedures, processes, or techniques that fall within his scope of work. This is* technical skill. *He must also have an affirmative attitude toward his fellow human beings, to communicate effectively with those both above and below him, and to build cooperative effort and group morale. This is* human skill. *Finally, he must have a broad outlook, 'the ability to see the enterprise as a whole.' He must be able to visualize the many relationships between an enterprise and its environment. This is* conceptual skill."

A STUDY* was recently made by Earl Brooks, Professor of Administration and Director of Special Programs at Cornell, in one of his industrial clients' organizations, to determine what particular things successful executives did more frequently than relatively unsuccessful executives. Out of that study came this approach to the list of things that successful executives do:

I. *PLANNING*
1. He plans his time.
2. He plans ahead on what the group should do.
3. He effectively plans for personnel needs.
4. He sees that there are realistic goals for the group.
5. He has the group participate in setting its own goals.
6. He establishes priorities for work to be done.
7. He minimizes the necessity for overtime.

II. *ORGANIZATION*
1. He sees that authority for each member is clearly understood.
2. He shows members how each job fits into the total picture.
3. He lets members know what is expected of them.
4. He sees that members follow organizational lines.
5. He sees that members have the equipment and material they need to work with.

III. *DELEGATION*
1. He effectively delegates responsibility and authority.

* *"What Successful Executives Do."* **Personnel** *November* 1955.

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2. He concerns himself with a minimum of detail.
3. He avoids trespassing on responsibility once delegated.

IV. *INITIATION*
1. He recognizes situations which need improvement.
2. He originates new approaches to problems.
3. He pushes new ways of doing things.
4. He makes the most of a promising new plan or idea.
5. He gets group reaction on important matters before going ahead.
6. He puts suggestions by the group into operation.
7. He encourages members to start new activities.
8. He faces up to situations.

V. *COMMUNICATIONS—RECEIVING*
1. He encourages members to express their ideas and opinions.
2. He keeps well informed about the accomplishments of the group.
3. He knows when something goes wrong.
4. He keeps informed on how members think and feel about things.
5. He handles questions satisfactorily.

VI. *COMMUNICATIONS—GIVING*
1. He reports progress to the group.
2. He keeps his group currently informed of changes in policy and procedure.
3. He informs members of activities of other departments.
4. He expresses appreciation when a member does a good job.
5. He keeps his group informed about matters affecting the work.
6. He is easy to understand.
7. He explains the "why" of his decisions.
8. He facilitates exchange of information within the group.
9. He makes significant contributions in group meetings.
10. He expresses himself clearly in writing.
11. He expresses himself well orally.
12. He comes to the point quickly in discussions.
13. He keeps higher levels of management informed of work status.
14. He conducts worthwhile meetings of the group.

VII. *RELATIONSHIP WITH OTHERS*

A. *Association*
1. He is friendly and approachable.
2. He shows that he enjoys his work.
3. He does things which make it pleasant to be a member of the group.
4. He gives personal attention to members who seem neglected.
5. He attends social events of the group.
6. He is courteous in his contacts with others.
7. He makes members feel at ease while talking with him.
8. He visits members in their work places.
9. He visits members when they are ill or in the hospital.
10. He participates in community activities.
11. He is interested in the personal welfare of individual members.

B. *Cooperation*
1. He helps members of the group settle their conflicts.
2. He encourages cooperation with members of other groups.
3. He generates a sense of belonging.
4. He goes out of his way to cooperate with fellow supervisors.

C. *Understanding*
1. He listens understandingly to others in a discussion.
2. He understands members' problems on the job.
3. He understands members' problems outside the job.
4. He recognizes members' accomplishments which are outside the job.
5. He tactfully adjusts to personalities and circumstances.

D. *Support*
1. He is firm in dealing with members of the group.
2. He defends his group against criticism.
3. He goes to bat for members of his group.
4. He backs up members in their actions.
5. He publicizes outstanding work of members of his group.
6. He invites criticism of his acts.
7. He deals objectively with problems and situations.
8. He can "take it" when the going is rough.

VIII. *UTILIZATION*
1. He stimulates members for greater effort.
2. He inspires in others the willingness to work toward objectives.
3. He sees to it that members are working to capacity.
4. To make full use of the skills and abilities of members.
5. He encourages cooperation among members of the group.
6. He makes effective use of his time.
7. He has the members share in decision making.
8. He makes effective use of equipment.

IX. *CONTROL & COORDINATION*
1. He sees that the work of members is coordinated.
2. He emphasizes the meeting of deadlines.
3. He sees that standards are met.
4. He lets members work at their own speed.
5. He lets others do their work the way they think best.
6. He emphasizes the control of costs.
7. He makes prompt decisions.
8. He sees that standard operating practices are followed by members.
9. He provides know-how to members of the group.

X. *DEVELOPMENT OF PEOPLE*
1. He selects the right person for the job.
2. He helps new members make adjustments.
3. He provides opportunity for members to improve their skills and abilities.
4. He creates in members a desire to do a better job.
5. He evaluates objectively each member's performance.
6. He lets members know how they are doing.
7. He sees that a member is rewarded for a job well done.
8. He uses constructive criticism.
9. He recommends for promotion the best qualified members when vacancies occur.
10. He discusses with members their career opportunities.
11. He develops an understudy.
12. He maintains or improves his physical fitness.
13. He evidences improvement in his leadership ability.

If, then, these are the kind of abilities we need to develop in ourselves in order to be good managers, how do we go about developing them?

To us at Celanese, management development is a means for identifying the areas in which an individual can improve his performance, and for helping him to plan his own improvement program.

Our basic philosophy is that only the individual can develop himself. It is part of each supervisor's duty to see that adequately prepared supervisors are coming along in his department to replace others, including himself, as they are transferred to other posts; and also to recognize and encourage capable individuals to prepare themselves for current and long-range advancement. A good leader will inspire his subordinates to undertake such development, and he will help to provide the means for that development; but it is up to the individual to plan his own career and develop his own inherent abilities.

The core of our management development program is an appraisal of each supervisory or key person made once a year by his superior in conjunction with two or three other persons on the same organizational level as the superior, or higher, but not in a direct line above the superior.

The appraisal, however, is primarily a means to an end. That end is: *the laying out of a specific plan* for development of the individual. This is something which must be worked out by the individual with his superior, so that each knows what the other is expected to do during the next period of time; and as the years progresses, the achievements of the individual can be measured against pre-established goals.

To assure that this principal objective of the appraisal program is given adequate attention, we have provided a form which we call the "Development Summary" for use by the superior during his counseling interview with the individual. One section of that form is entitled "Development Plan *Mutually Agreed* Upon." The sub-headings read:

"What steps are to be taken? Be as specific as possible."

"What assistance will be provided? Agree on a time schedule."

"Set review-of-progress dates for continuing follow-up."

Then there are three sections entitled:

a) "Specialized or Technical Development"

b) "Broadening or General Development"

c) "Development of Avocational Interests"

and under each section, space for answering two questions: *What? When?*

This, in brief, is how we provide the incentive and give assistance to our management personnel as individuals in planning their careers with Celanese. You see, we put the ultimate responsibility for establishing the plan, and implementing it, on the *individual*.

But, coming back to the individual who works for a company which provides no assistance in the matter of developing its managers of today or of tomorrow—how should such an individual go about establishing a program for himself and implementing it?

I know of *no other method* than that of sitting down with yourself and going through the same type of *realistic appraisal* of *you* as that which we would make of you at Celanese. Think of yourself in terms of the qualifications for a good executive. Think of yourself in terms of the attributes of an executive as described by John Fox. Think of yourself in terms of the three-skill approach.

Think of yourself in terms of the things that successful executives do more often than unsuccessful executives.

Think also of yourself in terms of skills which you may have but are not making full use of right now. (This may have more bearing on the *goals* which you will set for yourself than on your present *performance.*)

One good way to start might be to sit down, either by yourself or with one or two of your associates, and appraise the men who work for you. At Celanese our people have told us time and again that in talking over the why and wherefore of their subordinates' performance in a group appraisal, they have learned at least as much about their own performance as they did about their subordinates.

When you know the areas in which *you* need to develop, what are the avenues open to you for this development? Here again, *you* will have to select the means, find the time, and keep checking on yourself to see whether you are actually improving in your performance. Some of that improvement should become evident from the attitudes of people around, above and below you. Other parts of the improvement will be in your own personal satisfaction with your expanding knowledge of your job and its relation to the world around you. Much of your development is going to have to come day-by-day on the job.

Reading good management literature will provide new ideas and will stimulate more along the general line of management development.

THERE are, of course, correspondence courses in various technical and managerial skills, and night courses at universities all over the country. If you can get the time to attend appropriate seminars you will find it well worthwhile.

Then there are the S.A.M, A.M.A. and other Conferences on various subjects which run from one to three days, and the various Advanced Management courses offered by A.M.A. and about fifty universities running from one week to one year.

These are probably the least practical for an individual to use without Company sponsorship, because of the expense involved, and because of the time required. But if you cannot attend S.A.M and A.M.A. Seminars or Conferences, you can secure their very valuable literature.

There are Dale Carnegie and other courses in expression and public speaking. Various church and community activities provide excellent avenues for developing initiative and leadership.

In short, *your* program for self development can be established by: 1) Setting the goals; 2) appraising your present status as regards your needs to reach those goals; 3) choosing the means for satisfying those needs; 4) setting aside the necessary time for study, whether it be specific courses or for regular reading; 5) putting what you learn into practice; and 6) continuously re-appraising your achievement.

But remember this—*there is no quick and easy formula.* ■

PHIL CARROLL

Society for Advancement of Management's REGIONAL INCENTIVE PLAN

DAVID N. WISE

IT IS with great pleasure that we present here details of the new S.A.M Regional Incentive Plan which was mentioned in the August issue of Advanced Management **by Professor Harold Fischer in his "Tribute To Phil Carroll" (page 20).**

This plan, inspired by the wisdom and generosity of the award fund donor, President Phil Carroll, provides real incentive to the chapters for new chapter promotion, improved chapter operations, and regional growth. We hope that all chapters will participate in the competition for individual chapter betterment, and the further advancement of the Society as a whole.

David N. Wise
Vice President
S.A.M Chapter Operations

REGIONAL INCENTIVE PLAN
Phil Carroll Award Fund

1. Effective Date: July 1, 1958
2. Time Plan is to run unmodified: One S.A.M year ending June 30, 1959
3. Objectives of Plan: (A) Additional chapters within regions; (B) Overall regional growth and improved chapter operations
4. Plan consists of two (2) incentive awards:
   (A) New Chapter Award—A $100.00 cash award to be made at the time a new senior chapter is chartered. The $100.00 is to be awarded to the chapter, senior or university, that succeeds in getting the new chapter through the inauguration, organization, and subsequent chartering steps. Where National does all the work no award will be given to a chapter. Where several chapters contribute to the above steps the $100.00 will be split among such chapters by the Regional Vice President.
   (B) Regional Growth Award
      (1) Complete total year end Emerson Points as of June 30, 1958 for each region. For those chapters in a given region who are not now reporting or participating under the Emerson Award Plan, use the average points of the other chapters in that region as a point count, and thus establish a base point total, region by region.
      (2) Make cash awards to the three (3) regions which show the highest percent growth above the established base as of June 30, 1959. The three awards to be: $500; $250; $100.

Example: Region "X"

	1957-58 points up to June 30, 1958
Chapter (a)	6,000
Chapter (b)	4,000
Chapter (c)	2,000
Chapter (d)	000
Chapter (e)	2,000
Four chapters participating total	14,000
Average per Chapter	3,500

Five chapters in Region x 3,500 — 17,500 Base Points for Regional Incentive Plan

Per cent growth is based on **earned** points above base under the Emerson Award Plan. The above calculation is used to **establish a base only.**

   (3) "Core Cities" will qualify as a region under the Plan after they have chartered at least one new chapter in their region.
   (4) The Cash Awards to the three (3) outstanding regions will be made to the Regional Vice President for use within the region to enhance growth and improve operations.
   (5) Present Emerson Award Plan would still continue as is, and would make usual awards to individual chapters.

Is Military Organization Really Better?

by Professor Waino W. Suojanen

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It is a commonly encountered opinion that the military profession has done a better job organizing than is the case with civilian government agencies or with business firms.[1] Not only does this point of view appear time and again in the literature on administration and organization, it recurs with amazing frequency in day-to-day conversation, and it pervades the daily discussions in our class rooms.

In recent months, every alert citizen has become aware of the fact that shortcomings do exist at the highest levels of the defense establishment of our country. The President, with the advice and counsel of a group of distinguished military and civilian experts, has now initiated legislation to overcome these defects. From an organizational point of view, the proposed changes are sound and should be enacted into law.

The purpose of this paper, however, is not to analyze all of the changes which the President has suggested. Rather, we are interested in studying the existing organization of each of the military services and how well they are presently structured to the administrative demands of the continuing cold war in the light of the proposed reorganization. In this context, we will attempt to compare military organization as it has evolved to meet the requirements of the traditional situation with the proposed overhauling of the Department of Defense in which the civilian service secretaries are to be removed from the channels of military command and will, instead, devote their efforts to improving the organization and administration of their respective departments.

This change means that the military departments will support the major missions which will now be directly under the Joint Chiefs of Staff, who, in turn, will be responsible for unified national strategic planning. The result, at the departmental level, will be an increasing emphasis on administrative skills as contrasted to the previous policy of concentrating almost exclusively on the training of tacticians.

The Military Mission In A Cold War

The mission of the military has been completely revolutionized by the advent of nuclear weapons and much improved methods of delivering them to targets. No longer is the United States in a position to buy time by mobilizing, while our allies hold back the enemy as happened during World War I and World War II. Today our military posture is completely different—we must be ready to fight as soon as someone blows the whistle. The war may be over in a matter of hours, and we may be destroyed as a nation if we are not in a position to retaliate immediately and in kind.

On the other hand, we must not neglect our conventional weapons systems. Since the end of World War II, the advances made by our enemy have all been made through the use of traditional weaponry. The list of these advances is long and this is not an essay in international relations—therefore we will not labor the point.

[1] *See, for instance, Lyndall F. Urwick, "The Span of Control—Some Facts about the Fables",* Advanced Management, *November,* 1956, *pp.* 8-12, *and Edward H. Litchfield, "Notes on a General Theory of Administration."* Administrative Science Quarterly, *June,* 1956, *pp.* 5-6.

PROFESSOR SUOJANEN has contributed a number of articles to *Advanced Management*. In addition to business and teaching experience, Dr. Soujanen has had extensive military service, serving over 19 years of active and reserve duty, both as an enlisted man and an officer in the Army, in the infantry, military police, quartermaster and civil affairs and military government. At the present time he has a mobilization designation as a Budget and Finance Officer in the Office of the Comptroller of the Army. He has taught in a number of executive training programs for the U. S. Navy. He has served as a consultant for the U. S. Army and the U. S. Air Force, as well as the U. S. Department of Defense. In the latter capacity he has visited numerous Army, Navy, and Air Force installations throughout the United States. He is a member of the Reserve Officers Association and the Association of the United States Army.

No matter what the weapons systems, it is evident, from an organizational point of view, that we must have forces in being which can be deployed rapidly in any part of the world. This means that military units, now more than ever before in our history, must have the capability of moving quickly to wherever they may be needed.

Once the battle is joined, the requirements of dispersion and the limitations of communication are such that the commander on the scene must have almost unlimited authority to decide and act. This is quite different from the historical tactical situation in which the next higher commander as well as his superior were only a little distance removed from unit which was engaged with the enemy. Military leadership in this new type of warfare requires "captainship" of the highest order.

At the tactical level, there is crying need in the Army today for young commanders with the ability to think and act decisively under the pressures and complexities of modern battle. Executive committees may work very well for running an industry or business corporation, but not in battle—the big business of the Army—where the dealings and dividends are in life and death. I have yet to see a committee at any level that could vote a battalion up a hill! It takes one man who isn't afraid to say "I" and face the consequences. One man with the professional competence to know what to do, the guts to decide to do it, and the dynamic leadership to inspire other men to get it done.

The need for developing "Captainship" in our officer corps has always existed, but never with the urgency that it does today when a single battle group commander can have more firepower under his control than Wellington had at Waterloo. If we are to develop young leaders who can measure up to the tremendous responsibilities of command in atomic battle, we must give them practice in exercising lesser responsibilities now. They cannot develop "Captainship" if we use them as "messengers" and "liaison officers." We must not keep them so busy relaying detailed instructions conceived and written on high that they have no opportunity to generate decisions of their own.[2]

There is only one philosophy which adequately describes the organizational requirements of modern warfare. That philosophy is substantive decentralization which ". . . requires confidence that associates in decentralized positions will have the capacity to make sound decisions in the majority of cases; and such confidence starts at the executive level".[3]

Substantive decentralization requires leaders who are not afraid to make decisions and who have acquired experience in making decisions in commands of their own. It has no place for those who feel that the criteria for success are to "keep your eyes open and your mouth shut, salute everything that moves, whitewash anything that doesn't, and never volunteer for anything."

As Mr. Cordiner point out, however, "such confidence begins at the executive level." Substantive decentralization can not work where responsibility is exacted of the subordinate commander but where the authority to decide has been withheld. When this occurs, the higher commander is at fault for he has not made a genuine delegation of authority. He shows his lack of confidence by expecting his subordinate to carry out his assigned mission while, at the same time, withholding from him part of the resources that he needs to get the job done. The superior may lip service to an abstraction which is called "delegation" but, when the chips are down, he shows that he did not trust his lieutenant. This is one of the penalties of a narrow span of control which seeks to insure that each "i" is dotted and each "t" is crossed. Unfortunately it is the superior's eraser that wears out before his pencil is used up, and it is the subordinate who ends up in the hospital with an ulcer or a coronary.

The Tactical General Staff

The general staff, at the tactical level of the military organization, is essentially a committee that aids the commander in accomplishing his mission. It shares none of the responsibilities of command. "The commander alone is responsible for all that the unit does or fails to do. He cannot delegate this responsibility." One writer, who has advocated the use of the general staff concept in non-military organizations, describes its philosophy as follows:

It is clearly understood that senior specialists (general staff officers) have no authority downwards: their advice and authority must move upwards and be incorporated in the "chain of command"; that they are "on tap and not on top."[4]

We do not quarrel with the above. It is both sound organization theory and sound military doctrine. It worked well during World War I and World War II and again in Korea. In the tactical case, under conditions of conventional war, the general staff concept has been tested and found to be worthy.

However, experience indicates that in a cold war situation, such as we face today and will continue to face for many years to come, it is an inadequate organizational device—something different is needed. Similarly, the special staff arrangement in the American armed services is producing results which are not desirable from the administrative point of view. The same can be said of the commander-deputy relationship. The net result is that the climate in the military departments is such today that it is drying up the sources from which the captains of modern warfare must emerge. In the next three sections, we shall study each of the above in turn and try to ascertain why far too many potential "captains" are leaving the military service in favor of jobs in business and industry.

General Staff Command

The continuing cold war has produced a curious situation in our military departments. Essentially, general staffs at major command and higher levels reaching up to the Pentagon itself are exercising more and more command functions. The general staff, instead of being "on tap" is increasingly "on top." The following comment is apropos.

This strange arrangement stems from the fact, or belief, that commanding *is a job of such magnitude that it cannot be performed by one person and must be shared by a staff. The result is that the commander, who is totally responsible for accomplishing an assigned mission, has under him a committee of staff commanders. In principle, only he can command, but in practice that function is performed by a staff under cover of its power to inspect, supervise, coordinate and control. All this has been rationalized by an amazing mental process*

[2] *General Willard G. Wyman, "New and Old Tasks of CONARC,"* Army, *December,* 1957, *p.* 41.

[3] *Ralph J. Cordiner,* New Frontiers for Professional Managers, (*New York: McGraw-Hill Book Co., Inc.,* 1956), *p.* 50.

[4] *Urwick,* Advanced Management, op. cit., *p.* 12.

which denies that a staff officer violates principles of command so long as he specifies "by command of" his superior, even though the order or decision may be issued at his own discretion, to someone not responsible to him. The whole procedure acquires a kind of mystic logic that the staff officer is only expressing the policy or will of his commander.[5]

To an increasing extent, responsibility is exacted of subordinate commanders without a corresponding delegation of authority. The senior commander, in many instances, grants the power to review and approve to a general staff officer who is often junior in experience and rank to the subordinate commander. In a truly decentralized operation there should not be any need for review and approval if the decision is in accordance with policy. If review and approval is necessary, that function should be performed by the superior commander. If the junior demonstrates incapacity to do the job, he may have to be removed. Often, however, inability to perform may instead reflect an unwillingness to conform to detailed regulations which do not permit the junior any latitude in the making of decisions. As long as a person occupies a position of command, he can only develop the attributes of "captainship" if he also makes substantive decisions instead of being held responsible only for those which are purely routine in nature.

Too often the general staff officer at a higher level either turns down a proposal initiated at a lower headquarters either on his own cognizance or because it does not conform to the letter of the regulations. There are many instances when the proposal is not covered by the "book" at his level. In these cases, the correspondence may be bucked to the Pentagon level. There, another general staff officer performs the functions of review and decision. The result is a continuing flow of decisions from general staff officer to general staff officer which bypass the prescribed command channels.

It is very difficult to see how procedures of this kind operate to develop the daring and initiative required in modern battle. Yet it is these same commanders who would be directing our combat forces if someone were to press the button. How can we expect an officer who has grown up in a "paper mill" where even minor problems have to go "topside" for "clearance" ever function as a "captain" when he is isolated, as he will be, with only his own administrative resources to carry him through? How can his staff provide him with proper information and coordination if they subscribe to a theory of undelegated authority combined with irresponsibility? Can this environment produce the kind of competence demanded by modern warfare? The answers are negative in every instance.

What are the factors that have developed this philosophy of affirm and confirm? The following gives us part of the answer.

And so, although every military person subscribes to the principle of delegating command, in practice the principle is diluted. Accustomed to being closely supervised throughout our careers, we find it difficult to refrain from looking over a subordinate's shoulder. As years pass, the habit becomes ingrained. When we finally reach the higher echelons, we behave in the pattern we have developed. We are reluctant to trust local commanders who have to do the tasks. The greater the rank differential between staff and subordinate commander, the greater the reluctance.[6]

Special Staff Command

The determination of requirements, procurement, and distribution in each of our three military departments are the responsibility of their respective supply services. The Air Force has the simplest organization structure; logistics responsibility is centralized in the Air Materiel Command which operates the central supply and inventory control points. In the Army, the logistics activities of the technical services, such as the Quartermaster Corps, are coordinated by the Deputy Chief of Staff for Logistics. The Navy has a number of technical bureaus, similar to the technical services in the Army, which may control certain technical items. In addition, the Bureau of Supplies and Accounts exercises management control over Navy common supply and inventory control points.

The above description, although sketchy, should give the reader a general idea of the basic organization for logistics in the three military departments. In essence, the logistics arm of each department performs special staff functions, supervises the special staff activities as opposed to general staff functions. In tactical situations, using the Army as an illustration, the G-4 is the general staff officer who coordinates the special staff officers who may be commissioned in the technical services, the administrative services or the combat arms. Against this brief background, let us evaluate the following comment:

It never occurs to any type of specialist ("Special Staff Officer"), however lofty his status (rank), that he has the remotest right to issue orders to any person not under his direct command, not even to members of his own specialized corps if they are, for the time being, under command of a subordinate officer who is responsible to someone else.[7]

In a large organization the requirements of communication and control demand a certain degree of standardization. In the controller function, for instance, it is mandatory that subordinate units use a prescribed reporting format so that consolidated statements may be prepared. Similarly, the recording of transactions to operating accounts must possess a reasonable degree of consistency so that comparative data are generated for control purposes.

In order to maintain this uniformity and consistency, the controller in the business firm and the comptroller in the military must exercise a certain amount of technical supervision over their counterpart subordinates at the lower levels of the organization. For this same reason, technical services, bureaus, and commands have authority to issue standing operating procedures (SOP) in matters over which they exercise a specialized authority. While this may not be construed strictly as issuing orders to persons not under one's direct command, the observer who would argue that they are not considered to be exactly that at subordinate levels in the organization is naive indeed in his understanding of the military.

What often happens in this case is similar to what occurs when the general staff exercises command prerogatives. In many instances, the SOP is neither seen nor approved by the superior line commander. Instead, the "order" is forwarded directly to the line installation through technical service channels.

[5] *Colonel Frank Kowalski, "The Stifling Embrace of Administrative Staffs,"* Army, *February*, 1958, *p.* 32. *This is a penetrating analysis of general staff and special staff malfunctioning. Many of the comments which follow borrow from ideas expressed by Colonel Kowalski.*

[6] Ibid., *p.* 37.

[7] *Urwick,* Advanced Management, *op. cit. p.* 12.

Undoubtedly, the greatest damage to command authority is done through the fantastic latticework of technical channels that rise in the Pentagon and penetrate to the lowest elements of the military establishment. They are loaded with special instructions, directives and requirements. Through these channels, the technical services impose costly demand upon line operators and, under accepted dogmas, pay lip service to the principles of decentralization and integrity of command. When one watches the heavy flow of traditional control reports that travel up these channels, from installations direct to the technical service office, he wonders who really commands the installation.[8]

In addition to the above, special staff "command" is exercised through control over certain aspects of the funding process. Without going into detail, the installation commander ordinarily receives his maintenance and operations funds through command channels. However, certain supply funds are allotted to him through technical channels. The justification for these funds does not flow upward through the line as it does in the case of maintenance and operations fund—the subordinate commander requests and receives them from an office which has no responsibility for the accomplishment of the mission. This places the subordinate in a trying position. He is responsible for getting the job to his immediate superior—yet part of the resources needed to carry out his tasks flow to him through staff channels. The administrative weaknesses of this kind of organization are obvious.

"Assistant-To" Command

Another peculiar aspect of administrative organization in our military departments is the extent to which the "double billet" is employed. The titles may be commanding officer and executive officer, commander and deputy commander, officer in charge and civilian chief—of inventing titles there is no end. The double billet has even been the subject of Congressional investigation. Yet it rolls merrily along with a diffusion of responsibility and a dissipation of authority at all levels of our military departments.

The rationale for the commander-deputy arrangement arises from the requirements of the tactical situation. If the commander is incapacitated, there is no interruption in command. The deputy is thoroughly familiar with the situation and is prepared to assume command at any time so that the unit can continue operations. The availability of an individual to provide command continuity is a small price to pay to insure the success of the mission.

In the modern, administrative concept of war, as opposed to a tactical situation, the commander-deputy relationship exhibits the same centralizing tendencies discussed above in connection with general and the special staffs.[9] Rather than relying on the subordinate to a competent professional job, the deputy becomes an *alter ego* of the commander. Operational problems roll from higher headquarters to highest headquarters, resulting in mounting demands for more and more coordination. The deputy by necessity becomes highly involved in questions of command as increasing numbers of decisions are made at superior headquarters. The tactically sound organizational relationships degenerates into what, for want of a better name, we can call "organization in reverse"—a pyramid standing on its apex. Demands mount for general and staff officers to serve as assistant deputies, and so on, *ad infinitum*.

This dual commander technique is in complete contrast to prevailing practices of well-managed business firms. Here, the tendency is to eliminate the "assistant-to" except in special situations. The reason is clear. If an executive has need for an assistant, he is probably meddling in the affairs of subordinates by refusing to grant them the authority to get their jobs done on their own initiative. By outright prohibition of assistants and by increasing spans of control, the trend toward centralization is nipped in the bud. Furthermore, in order to set up a triple guarantee for delegation of authority, levels of supervision are sometimes completely eliminated. Here the military is in a position to learn valuable lessons from industry. Policy formation and peak coordination are ideally suited to the group—operational responsibility, on the other hand, must be vested in the individual.

Leadership Failures

The above discussion raises an important question. How do we reconcile the fact that the military has succeeded in developing an excellent organization for tactical (action) situations but so far has not yet been able to structure itself for the administrative requirements of modern warfare? The more one analyzes the question, the more one is impressed by the failure of our military departments to establish a philosophy and structure adequate for a military posture of watching and waiting.

THE general staff-special staff-deputy concept is admirably suited to the functions of an "action" organization.[10] This means that the organization in question is a tightly-knit hierarchy subject to control from a central command post. It means further that the organization is actively engaged in its current mission or planning for its next one. In this type of situation, general staff-special staff-deputy all function as extensions of the commander—they supplement his limitations of time, capacity, and ability. These, as the experienced reader will note, are the span of control requirements of the traditional military situation.

Tactical needs ill suffice the administrative needs of our present-day military establishment. Our armed forces must be able to retaliate immediately in any corner of the world. Despite improved signal systems, tactical commanders can not wait for detailed orders from a central command post or the war may be lost. The organizational philosophy which adapts well to traditional combat breaks down in this game of twisting wrists—in warfare which is a composite of economic, psychological, and political overtones requiring a strong administrative structure as well as the potential for sudden and destructive spurts of fighting.

What are the specific failures? There are at least four which come to mind.

1. *The top leadership of our military services has neglected its basic responsibility of redefining the mission.* The mission calls for substantive decentralization. Yet top management is still trying to fit today's mission into the strait jacket of yesterday's organizational philosophy and structure.

Increased pay has been recommended as one solution to attract the intelligent and retain the able as career military

[8] *Kowalski*, op. cit., *p.* 35.

[9] *Colonel Frank Kowalski, "Delegate—Don't Deputize,"* Armed Forces Management, *February* 1958, *pp.* 34-35.

[10] *Philip Selznick*, Leadership in Administration, (*Evanston, Ill.: Row, Peterson and Co.*, 1957), *pp.* 50-53. *This is an excellent volume on the analysis of organization; much of what follows is based on Selznick's comments.*

personnel. This proves that we learn very little from the lessons of the past. Should we not also ask ourselves whether the organizational structure and philosophy of our military departments is outmoded? Are there not any number of indications that many able people turn down a military career because of the maze of restrictions and red tape that has multiplied as the cold war has become more prolonged and complex? Can able personnel ever aspire to become "captains" if on every hand they are confronted by a flood of orders and a deluge of inspections? Will increased pay alone begin to solve any of these problems?

ONLY top leadership of the military departments can provide the proper climate—and up to now, this they have not done. Increases in pay are only a partial answer—much more vital is an environment in which capable people are permitted to develop in commands of their own. This requires a much more basic definition of the mission than has been attempted up to now. The President's reorganization plan, furthermore, indicates the need for redefining the mission as soon as possible.

2. *The top leadership of our military departments has failed in its responsibility for the definition of purpose.* Decentralization is a word which one hears often in the corridors of the Pentagon. To nod approvingly when decentralization is mentioned as a policy is one thing—to build decentralization as a basic value of the organization is another.

Decentralization requires a major change in administrative philosophy extending from department to installation to unit. It calls for more than a re-writing of the rules—it requires instead a way of thinking in which the spirit of the policy is accepted as contrasted to following the letter of the regulations.

Substantive decentralization means that unit commanders will make decisions instead of first having to obtain the approval of staff personnel. It means that review is performed by the superior commander, not by a staff section. It requires control—not the picayune, penny-pinching, cheese-paring approach of the auditor who has discovered a minor violation—but control in the sense that standards exist against which performance can be measured. Our military commanders, on the whole, are competent—but their competence is perfected only as they practice today for what well may be the realities of tomorrow. This they cannot do in an environment in which the "stifling embrace of staff sections" extends to the most minor of operating decisions.

However, and most important, is the lack of acceptance of substantive decentralization by policy makers at the executive and legislative levels. This includes not only the Bureau of the Budget but also the Congress, its committees, and the General Accounting Office. It is not enough to say that excessive controls will be dropped when administration improves because management can develop only when executives are provided the opportunity to make decisions—and this can not be accomplished "by the numbers." The current proposals go a long way toward improving the situation—provided they are implemented in the spirit in which they were conceived.

3. *The top leadership of our military services has fallen down in defining and protecting the concept of command.* The opportunity of obtain and administer a command of one's own is perhaps the most satisfying rewards of a military career. The military life may never afford the material satisfactions of a civilian career but it can and should provide to the able individual an incentive to aspire to a "command of his own." Whenever this opportunity to demonstrate one's ability to do the job, and do it better than anyone else, is stifled by higher echelons, then no matter how well one is paid or how high one's rank, the only alternative may be to call it quits.

A few potential "captains" who give up a military career could perhaps be persuaded to remain if the pay were higher. However, if increased material rewards were reinforced by the intangible, yet very real, rewards of command in the substantive sense, personnel turnover would be greatly reduced.

Unfortunately, at the present time, there are many people in the military who "never had it so good." These are the true bureaucrats whose only goal is retirement and whose philosophy is a standardized mediocrity of "affirm and conform." If you never make a decision which can't be pinned on you, goes their thinking, then you will never get "skinned." Too many of these individuals end up as staff functionaries who persist in perpetuating the myth that the higher the headquarters, the more able the people. If command were defined and protected by the top leadership, this type of administrator would soon disappear from the scene.

The proposed reorganization plan is aimed at developing "captains" in the true sense of the concept. It is important that the military services acknowledge, at an early stage in the game, that executive development begins at the start of a person's career and continues until he reaches retirement age. The squadron commander of today will be the general in charge of the European Command tomorrow. The administrative environment through which he is promoted must link these two together by preserving a continuity in which command remains highly valued as a basic end of military organization. In this respect, the administrative climate within the military departments is crucial. In military terminology, it constitutes a pipeline in which the "captains" of tomorrow are conditioned — where today's majors are trained to become the major mission commanders of tomorrow.

4. *Top leadership has permitted internal struggles to be resolved by expedients rather than channeling them toward more effective accomplishment of mission.* Every large organization is a composite of units, all engaged in a struggle for power. If this rivalry is not channeled properly, the organization breaks down and fails to operate in a coordinated manner. This appears to be the case in our military departments.

THE general staff, since it is close to the top level commander, can win his assent to staff review and approval of operating decisions. Lower echelons are frustrated because they find their opinions and criticisms blocked by these newly created channels once the staff has secured a strategic position. Special staffs are similarly located in a strategic position — General Nelson's book bears adequate testimony to this. Deputies and assistants are so close to the superior that no one at lower levels dares question their right to command. We are not arguing that such internal rivalries are always bad—but they must be channeled in such a way that they

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DAUSE L. BIBBY

MR. BIBBY was born in Cisco, Texas. Upon graduation from sales school in 1934 he went to work in the Dallas office of IBM as a salesman. In 1935 he was promoted to sales representative of the company's Houston office where he remained until May 1941 when he became Assistant to the Vice President in Endicott, N. Y. In July 1943 Mr. Bibby was made General Manager of IBM Plant 2 at Poughkeepsie, N. Y., where he remained until given military leave of absence to enter the Navy in April 1944. He returned to Poughkeepsie as General Manager upon his discharge from the service in 1946. In September 1949 Mr. Bibby was promoted to Vice President, with offices in Endicott. Later he moved his headquarters to New York where he was put in charge of all IBM card operations. In January 1956 Mr. Bibby accepted appointment as Executive Vice President of Daystrom, Inc., a management holding company which operates ten units, primarily in electronics.

serve the ends of the organization instead of operating at cross purposes.

The military objective of winning a war is not as clear cut as the commercial objective of selling a product at a profit. For this reason, it may be difficult to channel rivalries in the correct directions. This re-emphasizes the point that after-the-fact changes can be made in the plans of business firms in order to arrive at a profit in the next budget period. The nature of nuclear war is different—there is no place for "Monday morning quarterbacks" in this scheme of affairs. Who is to say who is correct before the fact? Yet we must be correct if Saturday afternoon ever materializes.

Unfortunately, the changing political picture; new Administrations and different Congresses; the pork barrel tug of war (keep this post active, build these dams, dredge that river, buy vehicles in Detroit, procure ballistic missiles from aircraft manufacturers in California, overhaul ships in private yards, to name only a few) contribute to rivalries. They dissipate balanced programs and, by overemphasizing peacetime frills, often make us forget that it may indeed be Saturday afternoon.

The military departments must live with this situation of peacetime controls and the refusal to decentralize. These policies lead to excessive overhead and to too many high ranking officers in top administrative staffs. As the result of an out-of-date concept of the mission, officers are trained as tacticians and their administrative education tends to be neglected. Rotation policies contribute their share to the problem—officers know a lot about everything but are always learning the requirements of their present position. All of these factors, many of them political in nature, burden the military departments and act to compound the problems discussed above.

Summary

How does all of the above relate to organization in general? Part of the answer is obvious. Fables of organization are not at all uncommon—and the statement that the military has done a perfect job of organizing may well fall into this category.

One must also beware of suggestions that the business firm might function better if it were to adopt some form of the general staff concept. As a matter of fact, many of our well-managed corporations are doing just the opposite and with excellent results. Home office staffs are being cut down in size and more autonomy is being vested in operating divisions. Here the guiding philosophy is partly that if there are no idle hands topside, there will be less interference with the activities of the people at the operating levels. At the same time, this policy makes more talent available at the payoff level and this is often a consideration of no mean proportions.

Military organizations have traditionally been more authoritarian than large corporations or comparable government agencies. This lingering authoritarianism dies hard—one of its invidious legacies is a refusal to delegate authority to subordinate levels. In this respect, the top military leadership has yet to recognize that oversupervision will disappear only when operating decisions are made by those executives closest to the scene of action. This also means that general and special staff sections must be reduced in size and improved in quality to the point where they will fulfill their proper roles of advice and counsel to the commander instead of concerning themselves with the review and approval of operating decisions.

All this indicates that not enough attention has yet been given to the basic problem of transforming the structure of an action organization into the demands of watching and waiting warfare. The lessons here are of interest to any one interested in organization planning —major changes in the mission of an organization require major changes in its philosophy and structure. Top leadership, in turn, must follow them through until the "climate" within the establishment is adjusted to the demands of the new environment.

The proposed reorganization plan cuts to the heart of the problem by recognizing that nuclear warfare is a composite of economic, psychological and political overtones requiring a strong administrative structure as well as the potential for sudden and destructive spurts of fighting. By setting up the military services as the administrative support organization to the major missions, it underlines, with bold strokes, the necessity for the changes presented in this paper. It is imperative that the Congress institute the policy so that the military departments can develop the management reforms which are part and parcel of the realities of watching and waiting warfare.[11] ■

[11] *The writer has approached military organization mainly from the Army viewpoint. However, most of the above comments also apply to the Navy and the Air Force. I am indebted to many friends in the Army, Navy and Air Force who have contributed to this analysis and who, for obvious reasons, must remain nameless. None of the comments or criticisms expressed in this paper should be construed as reflecting official policy—they represent solely the personal viewpoint of the author.*

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Some Reasons For Belonging To A Management Society

by Louis Davis

National Representative
American Cancer Society
and
Senior Associate
Cresap, McCormick & Paget
New York City

MANAGEMENT is no longer a mysterious art practiced by a limited few with a so-called natural aptitude and some mumbo-jumbo to confuse the uninitiated. Management today has many faces, many specialties. At the very top is the generalist—the person who can visualize, anticipate and plan, then execute to bring to fruition the plans for the organization being managed. The fundamentals of management are basic to the point that a capable management in one firm or industry can, with a minimum of effort and training, transfer that management skill to another firm or industry.

By the very nature of today's business complexity some form of specialization is forced upon most of us, and most of us become expert in some specialized field. You leave school to go into the wide, wide world to make your mark. You start by working at a trade, an industry, a specific field of endeavor. You sooner or later realize that scholastic management theory and study must be applied to practical daily situations. Then you begin to become a specialist.

Now, you ask, how does a management society help me in this? First, may I point out that early in your careers you meet up with two types of management groups. There are societies organized within a trade or profession, such as engineers, attorneys, public accountants, and the like. There are also societies organized across the various professions and specialities or skills with appeal to the broad field of management and administration. Both kinds of organizations are beneficial and necessary. I write here of the general management type of society such as the Society for Advancement of Management.

How can S.A.M benefit you? I offer the following:

1. You will, through S.A.M publications, meetings, conferences and program activities, meet and work with others who are interested in management for itself, and they will come from both your own and other industries and skills. Your base of acquaintance and interest will be broadened.

2. You will have opportunities to discuss your problems as problems, on the basis of a management question not just as a peculiarity of your own industry or plant.

3. You will learn about how similar management problems are met in industries other than your own; your ideas will be cross-fertilized outside and beyond your usual contacts in industry.

4. You will meet and maintain acquaintances, interests and friendships in the management field beyond your limited industry contacts.

5. You will retain some of the contacts, opportunities and activities as a generalist, not becoming enamored only of your specialized job, and retain your continuing broad interests.

6. You will have an opportunity to perform public service.

7. You will enjoy the activities and relationships as well as have opportunities to improve your economic position, and perhaps get a better job.

All of this builds confidence, know-how, and contacts. It contributes to your knowledge, your experiences, your prestige. Membership in societies such as the S.A.M help an individual with a competitive position in management for they provide a helping hand to continued learning of management techniques and know-how, for the societies keep you posted on new developments. ■

MR. DAVIS has been National Representative for the American Cancer Society since September 1957. He has been associated with Cresap, McCormick & Paget as Senior Associate since 1955. From 1946 to 1955 he was Administrative Officer of the U. S. Department of Labor's Bureau of Employment Security. From 1941-46 he was Associate Regional Representative of the U. S. Department of Health, Education & Welfare at Atlanta. Prior to this Mr. Davis held various positions with the War Food Administration, Social Security Administration and other government agencies and in industry. He is a fellow of the Society for Advancement of Management.

Basic Standards—Management's Tool

by R. V. Flint
Chief Industrial Engineer
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MANAGEMENT through the years has developed various approaches and techniques to provide guidance in making sound decisions. There are many management tools being employed, the design and application of which vary from company to company, depending upon the nature of the problems.

One of the oldest and most fundamental of such management tools is basic standards. Every business uses basic standards to some degree, although such standards in many companies may be highly informal and even may not be considered as standards in the usual sense. This discussion does not present basic standards in the light of being a new concept. Rather, its objective is to provide an overall perspective on basic standards as a modern management tool, which when properly designed and used, can be of substantial assistance in the field of control and decision-making. Possibly certain of the views which are presented will be helpful in clarifying the highly important role that basic standards can play in solving some of today's complex business problems.

A common understanding of the term "basic standard" is highly desirable before proceeding further with the subject. A basic standard as the term is used in this paper is a quantitatively expressed relationship. In practice, it is a quantitative allowance for carrying out a defined activity under prescribed conditions. Basic standards in their elemental form are expressed in physical measurement units such as: man-hours, machine or equipment hours, tons, degrees, lbs., cu. ft., BTU's, KWH, gallons, and pieces.

Basic standards provide such familiar physical relationships or yardsticks as:

The standard tons or pieces produced per machine hour, or reciprocally, the standard allowed machine hours per ton or piece;

The standard tons or pieces produced per man-hour—or reciprocally, the standard allowed man-hours per ton or piece;

The standard units of charged material per unit of prime product produced—or reciprocally, the standard per cent or decimal yield of prime product from the input charged material;

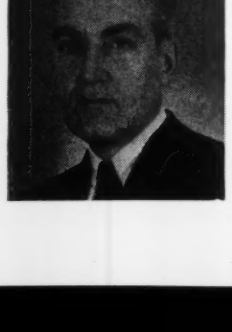
The standard allowed BTU's of fuel per machine operating hour or per unit of product produced; and

The standard crew man-hours per machine operating hour.

Basic standards can be converted to dollar standards by multiplying the physical units by appropriate price or dollar factors. Basic standards, as the term implies, tend to have stability and permanence. They are not affected by the shifting value of monetary units, and they have universal significance. For example, a man-hour has the same meaning around the world; it has the same meaning today that it had ten years ago or fifty years ago. In contrast, the expression "dollars of labor cost" holds meaning only to those who can define what a dollar is.

Viewing basic standards as a management tool—what can they do for management? What are the characteristics which make them useful? What are the requirements of an effective basic standards system?

Before the benefits to be derived from basic standards can be discussed, the scope of coverage must be defined. Obviously a company with only isolated basic standards installations cannot expect the same benefits as are achieved by a company with comprehensive coverage. The U. S. Steel system is of the latter type. The U. S. Steel basic standards system is described briefly because it typifies an approach which has had comprehensive coverage as an objective. U. S. Steel's long-term experience with



R. V. FLINT has worked in the U. S. Steel Industrial Engineering organization for twenty years, and has been Chief Industrial Engineer, Basic Standards, since 1951. He is a native of South Dakota and a graduate of South Dakota School of Mines and Technology, with a B.S. in Metallurgical Engineering. Mr. Flint has presented a number of technical papers on the subjects of standards and statistical correlation methods.

this system and the benefits which are being obtained are probably representative of other similar installations.

U. S. Steel has a formalized, interlocking system of basic standards covering every facet of its activities starting with the mining of raw materials and ending with the finished product loaded for customer shipment. This basic standards system is operated as an integral part of the U. S. Steel Standard Cost System. Both the basic standards system and the standard cost system are coordinated on a Corporation-wide basis and are administered in accordance with uniform policies, principles, and procedural instructions approved by Executive Management. In the over-all administration of these standards systems in U. S. Steel, basic standards are the responsibility of the Production Department and specifically within this Department, the Industrial Engineering Division. Standard prices and the dollarization of basic standards to derive dollar standards are responsibilities of the Accounting Department.

A COMPREHENSIVE basic standards system can be viewed as an organized searching out and recording of management's knowledge of the physical cause-and-effect relationships which govern each activity and manufacturing process making up the total business. Thus, a basic standards system properly administered should serve as a clearing house for the recording of new knowledge and the expression of this knowledge in the form of standards which can be utilized on a practical basis.

The individual standards in the basic standards system are the building blocks of knowledge which when assembled in the proper manner will provide information to guide management's decisions. A basic standards system should perform the following four major functions for management:

First — Basic standards when assembled in accordance with standard manufacturing practices and when dollarized at prescribed product volumes enable the calculation of standard product costs. A knowledge of product costs is essential for pricing guidance and for profit planning. The more diverse a company's products and the more frequent the changes in product type or design, the greater is the need for such information.

Second — Basic standards when applied to the expected product or sales volume for a future period enable the planning of operating schedules and the establishment of predetermined quantitative budgets. These same standards when dollarized provide the planned dollar budgets. Because basic standards recognize, definitively, product mix variables, the budgets are realistic in terms of the control of quantities and dollars.

In the writer's opinion, there is no substitute for pre-planned budgets in which members of management have confidence. If there is confidence in the fairness of such budgets, there will generally be a determination to meet these budgets.

Third — Basic standards when dollarized and applied to the accomplished production for any period provide management a measure of the dollars which should have been spent in comparison to the dollars that were actually spent. Also, for each equipment unit, it is possible to compare the units produced per hour with the units which should have been produced and to compare the actual yield with the standard yield.

Under this same function can be included the use of basic standards for performance and variance analysis, i.e., the use of basic standards to identify causes for poor performance and to suggest the remedial actions which should be taken.

Fourth — Basic standards when assembled in the proper manner and when dollarized, as required, provide guidance for the resolution of management planning problems. This includes justification of proposed capital expenditures. It includes the operational and economic evaluation of alternate raw materials, alternate facilities or facility designs, and alternate processes and practices. This is a rapidly developing and highly important field of basic standards application.

If the individual basic standards or building blocks of knowledge are sound, if these building blocks are assembled intelligently, and if right dollar factors are applied, reliable guidance answers to very complicated problems can be developed. Consistent and reproducible answers can be obtained through the utilization of predetermined calculation routines which incorporate management's best knowledge on how to assemble or integrate the standards. It is believed that through this approach the opportunity for inadvertent omission of important elements of a problem is greatly minimized. Likewise, it is believed that the opportunity for distortion of results by the introduction of non-objective opinion or transitory effects is also minimized.

It is emphasized that standards and the use of standards are not substitutes for management judgment in decision-making. The purpose of standards is to aid in the task of providing maximum guidance information, to enable factual presentation of alternates, and to reduce the effort necessary to assemble balanced and coordinated data for solving management problems. Some of these problems in a large corporation can be exceedingly complex. Even though the building blocks of knowledge may be available, many applications of standards would be so involved or so time-consuming as to be impractical if management did not have the help of various mathematical techniques applied with the assistance of electronic computers.

One of the most important attributes of a formalized basic standards system —and one which is not sufficiently appreciated—lies in the fact that it provides a medium for perpetuating management knowledge. As members of management move to new positions their knowledge and their demonstrated good performance is reflected in the standards which they leave behind and which measure their prior activities.

WHILE Industrial Engineering in U. S. Steel specifically discharges the function of determining, recording, and maintaining basic standards, standards are considered to be everybody's business. The standards system attains its maximum success and usefulness only if every member of management takes an active interest in the standards which measure his activities. Every member of management must contribute his knowledge to the standards system, and he must believe in his standards. Because he must accept accountability for the performances and variances which are indicated by application of the standards, it is believed that he not only must understand his standards but must have the right of approval.

In a comprehensive basic standards system, there are physical relationships for each facility which spell out the standard production rates and yields

for individual products when these products are produced from various raw materials and under various practice conditions. Additionally, there are basic standards for every item of cost above expense including labor, repair and maintenance, fuels, utilities, tools, supplies, services, plant administrative costs and general headquarters expense. The development of this total body of standards is an undertaking which calls for many talents. Not the least of these talents is the ability of those directly responsible for administering the system to secure the knowledge from others and to interpret and translate this knowledge into a form which can be utilized on a practical basis in the standards system.

UNDOUBTEDLY, in describing a type of system in which every activity and every item of expense must be covered by standards, the foregoing discussion has raised certain questions regarding the standards-setting technique which are used. Basic standards setting is fundamentally a problem of isolating and quantitatively evaluating significant variables. The techniques employed and the detail accuracy needed depend on the nature of the item being evaluated and its relative importance in the overall standards system. Standards setting is expensive business; it can become prohibitive if not kept in proper perspective.

The following standards-setting techniques are employed:

1. *Time Study*—Time study is used for developing many labor standards. It is also used for equipment time standards for many types of mechanical equipment.
2. *Statistical Analysis of Historical Experience*—This approach is applied in establishing production and material standards for facilities involving chemical, thermal, or thermo-chemical processes. There are a great many of these in the steel business, and they usually are characterized by large numbers of interdependent and concurrently changing variables. The statistical techniques which are used vary to suit the problem and range from simple selective recapping, to multiple regression analyses of problems involving 15 to 20 variables.

   Statistical analysis of historical experience is also used for most standards setting for such items as repair and maintenance, fuels, utilities, tools and supplies.
3. *Engineering Synthesis* — Various types of standards can be established by engineering calculation. Certain standards involving chemical reactions, electric power formulas, and product yield, are of this type.
4. *Research and Engineering Tests*— Rarely can management afford to conduct research tests for standards setting purposes alone, but when research tests are conducted for other purposes the results can be utilized in the standards system.
5. *Engineering Judgment* — When other sources of data are unavailable, it not infrequently becomes necessary to establish standards based on composite best judgment. For example, standards for new processes or new facility designs necessarily must incorporate a substantial measure of judgment and intuitive prediction of results. Mature judgment is an extremely important aspect of all standards setting—no matter what technique is employed.

A basic standards system is most effective and serves management best when it meets the following requirements:

1. With respect to recognition of variables, standards must be as accurate and as refined as practicable —but the expenditures to reach these objectives must be in proper balance with the benefits to be realized.
2. With respect to level, i.e., tightness or looseness, standards must be realistic. They must be reasonably attainable under good practice conditions. It is the writer's opinino that standards which are excessively tight tend to discourage maximum effort, while standards which are too loose can promote an attitude of complacency. Most of the potential benefits of basic standards as a useful management tool are lost if standards do not meet the primary test of being "reasonably attainable."
3. Standards must be properly maintained. An adequate organization must be provided to keep standards up to date with respect to new or changed conditions. Responsibilities for standards administration must be defined carefully, and provision must be made for appropriate review and approval of standards.
4. Standards must be expressed in a form which is understandable, but which at the same time will give low-cost application and administration. Almost any standard can be expressed in two or more different ways. The form of expression becomes very important in considering cost of actuation.
5. Standards must be accompanied by carefully developed instructions as to their method of selection and assembly for different management uses. In this regard, most standards systems must be supplemented by codification procedures to facilitate handling of numerical data.
6. The extent of standards coverage must be carefully evaluated. While the cost of administration of a standards system is essentially proportional to the extent of coverage the combinations or types of problems in which standards can be used tends to compound as greater coverage is achieved. This is particularly true of management problems involving optimization of alternate choices, or the joint consideration of multiple products, facilities, locations, or practices.

THIS discussion undoubtedly has covered an approach to basic standards that is more comprehensive than many companies now have or possibly would need or want. The degree to which a company needs standards is a matter which it alone can evaluate. However, in conclusion it is believed appropriate to re-emphasize the point that basic standards are a potent tool which should not be overlooked in today's search for help in management planning, control, and decision-making problems. ■

WORDS OF WISDOM

I will pay more for the ability to handle people than for any other ability under the sun.

John D. Rockefeller

We must treat ideas somewhat as if they were baby fish. Throw thousands out into the waters. Only a handful will survive, but that is plenty.

Anne Heywood

The Engineer As Citizen

by Morris L. Cooke

Consulting Engineer
Philadelphia, Pa.

AT HIS INSTALLATION as president of Rutgers University, Lewis Webster Jones said, "The universities must now put first the education of young men and women as persons and citizens, recognizing that their training as competent technicians is necessary but of secondary importance." Here Dr. Jones put his finger on three important phases in the training of engineers as all-round people.

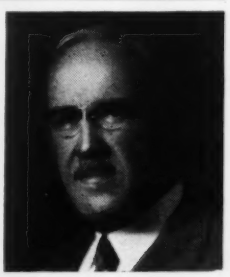
Now let us take a look at what is actually happening in these three quite distinct areas of engineering education. In the first place it can be freely admitted that our engineering schools, utilizing the rapidly increasing stock of scientific and technical knowledge, and aided by a wide variety of engineering societies, are doing a pretty fair job in providing for the technological side of an engineer's equipment. As bearing on Dr. Jones' reference to "persons," certainly progress has been made in recent years in the development of the cultural side of a standard engineering education. This has been due largely to the influence of a recommendation first formally made over twenty years ago by the Wickenden Commission, and later endorsed by Engineers' Council for Professional Development through its accrediting procedures. Both agencies suggest that at least twenty per cent of curricular time be devoted to non-engineering subjects of a cultural type likely to broaden the engineer's outlook and to enrich his personal life by acquainting him, as Matthew Arnold expressed it, "With the best that has been known and said in the world, and thus with the history of the human spirit." Let it be admitted that really to illumine engineering curricula as recommended is no easy task. Simply to add non-engineering subjects without a reasonable expectation that they will broaden understanding and enrich the outlook has already been proven to be only a sacrifice of hours previously devoted to technical training. To accomplish any satisfying result may take years of trial and error. A significant and nation-wide effort toward this end has been too long delayed.

To lengthen the normal four-year engineering course to five years, to demand a pre-engineering arts course, and to make engineering a graduate course are suggestions seemingly too radical to be considered at this time for general adoption.

But, vastly important as it is, next to nothing has been done by the engineering profession, through the schools which train engineers, or through our engineering societies, to activate Dr. Jones' insistence that the technically trained be at the same time full-fledged citizens. In *Engineering, a Creative Profession*, published a few years ago and widely advertised by E.C.P.D., and its predecessor pamphlet, *Engineering as a Career*, published earlier, no mention is made of the engineer's civic responsibilities other those involved in being a good technician. This situation results in a measure from a curious conviction on the part of many of those educating engineers that the study of the so-called humanities, even when conducted under ideal auspices, includes all necessary recognition of the engineer's civic responsibility.

The Engineer and Social Service

WHILE VOTING at elections has come to be recognized as a prime responsibility of educated people, the effect of a single vote in a national electorate must necessarily be minimal. Similarly, while the social service rendered by any one engineer may easily be of limited importance, social service on a profession-wide basis would undoubtedly be a mighty force in human affairs. There is no intention in what follows to discuss



The engineer occupies much the same position in society as the architect, and faces the same problems. Morris Cooke has had a distinguished career as an engineer and a governmental official. He has served as Director of Public Works in Philadelphia, Chairman of the Shipbuilding Stabilzation Committee and Chairman of the President's Water Resources Policy Commission.

how we engineers are meeting the test of non-technical civic interest by comparison with what is being done by other professions. The discussion is on the opportunity and responsibility of our own profession.

The assumption is commonly made by doctors, lawyers, economists, engineers, and other professionals—who, by the way, are apt to be among our most highly schooled people—that good work in their own technical specialties absolves them from any responsibility for what goes on in other sectors of our far-flung society. This attitude becomes more and more baneful as our specialties become narrower and deeper. Any professional is apt to evaluate as his most significant rating that accorded by those practicing in the same specialty. This is assumed to be the master test for professional accomplishment and arrival. As narrowing and deepening specialization goes forward by leaps and bounds, what happens within the intervening and widening interstices of the social order becomes more and more accidental. Therefore, over wide areas of human interest what happens benefits not all by the good offices of those who should be the best qualified to lend a guiding hand. In these haphazard and uncontrolled circumstances the illiterate, the overly ambitious, and the blatantly crooked are apt to call the tune. We cannot afford to *assume* the continuance of our democracy with its priceless liberty. Survival requires conscious and devoted effort at all levels, and by all groups, constituting the American public.

HERE ARE SOME typical matters among thousands which cry out for non-technical and non-official attention from the lay public. On the domestic front: slum clearance, soil conservation, control of stream pollution, education at all levels, strengthening government and making it clean, civil liberties, agencies for safeguarding and advancing the moral standards of our national life, and a hundred and one other local community enterprises such as hospitals and health clinics, homes for the aged or infirm, boys' clubs, YMCA, symphony orchestras, and recreation centers. And internationally we citizen engineers should stand with the growing number and variety of agencies that struggle for better relations between peoples and states, and that further relentlessly pursue the attack on world-wide poverty and low living standards. That aid to backward peoples is not all technical or governmental was recently illustrated through the sending by airplane under National Council of Churches auspices from Columbus, Ohio, to Iran, of 30,000 New Hampshire Red baby chicks. The movement for the exchange of students between this and foreign countries carried on under scores of different auspices, many of them non-governmental, is becoming a great force for the betterment of human and international relations.

The Broad Outlook

AS A LARGE PERCENTAGE of our profession "work for the Government"—as much as fifty per cent in ASCE—we should have in mind that public employment is not necessarily synonymous with socialmindedness. The acceptance by engineers of invitations to sit on non-engineering or quasi-engineering boards and commissions, either public or private, can and perhaps usually does, tend to broaden the understanding between our specialized field and that which lies outside. But the master result will be achieved only when the individual engineer and our engineering organizations have learned to promote socially minded activities on their own initiative —when to think beyond the narrow technical confines of engineering has become second nature.

Of course the claim is often made by professional people, including engineers, that when adequate time and attention are devoted to their technical pursuits, no time is left for lay endeavor. All history and all philosophy appear to question this point of view. Leadership and arrival seem to depend upon broadening both the outlook and the activities. It took Elton Mayo to teach the management engineers the significance in the study of shop operations of what he called "the total situation." The same outlook in a broader field is suggested by the word ecology, only recently receiving common acceptance, as indicating the necessity for going far afield in the study of nature and its ways.

As over eighty-six per cent of all engineers are employees, it would seem highly important that as early as possible in their education they should receive specific grounding in the essential qualities of the public interest as contrasted with those definitely private, and at times anti-social, considerations which are part and parcel of our so-called free enterprise system. Accepting certain principles and practices as being innately and timelessly either right or wrong, and assuming that they provide the basic foundations for all conduct under the democratic process, it would seem desirable that the rules for our day-to-day guidance in such matters should be evolved through the long-time and wide-scale thinking of the citizenry generally, rather than be handed down on occasion by any then-dominant top leadership, either in Government, the college world, or in private enterprise. Thus civic and ethical disobedience on proper occasions is implied if the engineering group's claim to professional status is to be justified.

Since adult engineers as a rule find it difficult to serve in the less conspicuous capacities of the social service, the ultimate achievement of our goal seems to lie in seeing to it that the start be made in high school and college days. Even the simplest of social welfare assignments will begin to make the evolving engineer recognize himself as a member of society and not simply as a highly skilled technician. Under Carnegie Corportation financing, Teachers College of Columbia University has made substantial progress in taking the study of civics and the practice of public service into a large percentage of our high schools. Seemingly this system without material change could be extended to cover at least the undergraduate years in engineering schools.

Civic Responsibilities

SOME LIBERAL ARTS SCHOOLS and colleges are already using teachers' influence in leading their pupils' activity into various lines of community service. Goddard College at Plainfield, Vermont; Parsons College at Fairfield, Iowa; Illinois College at Jacksonville, Illinois; the University of Kentucky at Lexington; St. Francis Xavier College at Antigonish, Nova Scotia; are a few among many colleges which have stressed community development in their curricula. In some instances the development of student thinking has been the motivating consideration. In others a sense of responsibility for the community in which the college is located accounts for the interest. Facility in community service cannot be acquired solely through "book learning." There must be practical experience. Even four years of intense extracurricular activities cannot take the place of public service off the campus.

The broadening of the interests of adult engineers would be encouraged if the effort were made to have frequently on the program of engineering meetings

some spokesman for a non-engineering discipline, beginning perhaps with economists and other such professionals whose work at least impinges on the engineering field.

When engineers discuss civic responsibilities, they usually have in mind holding elective public offices. Of course that involves getting into politics, and "politics is rotten" according to the normal engineering point of view. We have some rotten politics, just as we have some crooked business. There is too much of both. Society provides jails for offenders. But this is really testimony as to its health—not at all an admission that the social fabric is honey-combed with evil. So, to admit a percentage of graft in politics and of crookedness in business, is to face facts, rather than to damn our political and business systems or to give aid and comfort to the guilty. To say that "all politics is rotten" not only gets us nowhere, but it is not true—and further, it is a thoroughly demoralizing cliché. If crookedness comes our way, let us try to "scotch" it. But let us not permit the fact that there are crooks, to lend too much color to our lives. That is what the crooks in government and industry would have us do. It is terribly anti-social. Emphasize the fine things rather than the drab ones—not because it is either pleasant or tactful to do so, but because it is the formula by which the race has always gained new heights.

"Sound Off"

THERE ARE AT LEAST TWO ways by which one enters the political field. Either some top man, or so-called "boss," taps you on the shoulder and suggests that you run for some political position, or— and vastly preferable—through a gradually widening interest in socially minded service of the public, seeking or accepting a political post becomes a natural. This was apparently the route by which Herbert Hoover became President of the U.S.A. and ASME members Thomas E. Millsop and Raymond R. Tucker became mayors of their home cities.

As a matter of fact, both engineers and scientists tend to become a bit resentful when taken to task for not seeming to carry their fair share of the responsibility for affairs, domestic and foreign, lying outside their strictly professional domains. This is because each of us has engineering acquaintances who display an active concern for the poor and the aged, or for some phase of public education, or who struggle to make the public service more efficient and to free it from dishonesty. But statistically speaking, how general is this community-mindedness among engineers? No one can tell. It has been suggested from time to time that questionnaires be sent out to a representative number of the members of our large engineering societies, not only to find out what public services are now being rendered, but also to awaken interest in increasing the volume of this type of activity within the profession. In the absence of any statistical data reflecting either the participation by engineers in public affairs or the public's recognition of the value of such services, the author has had recourse to sources of information not designed to be so used.

For instance, a review of several programs of the American Forum, the Georgetown University Forum, Youth Wants to Know, and the New York Times Youth Forum, and one year of America's Town Meeting of the Air, reveals surprisingly few speakers or members of panels who could be indentified as engineers.

Of 522 appearances of American citizens in these enterprises only 13 are of our profession. On the other hand, there were 134 lawyers, 116 educators, 75 journalists and authors, 56 business men, 26 doctors, 21 scientists, 20 economists, and 16 clergymen among those distinguished names. The truth of the matter seems to be that engineers are not trained for the hurly-burly of public discussion and by virtue of that fact live lives all but detached from the pulsating non-technical world. In the opinion of one distinguished member of our profession, engineers do not "sound off" enough. Even in engineering proceedings informal discussion is all but unknown. The fact that an engineer is assumed to possess what he considers to be the relevant data before expressing an opinion precludes "sounding off." And yet, as the *Charlotte News* (Charlotte, N. C.) recently observed, " 'Sounding off' is one of America's finest democratic exercises. Don't ever let it wither away."

Few Engineers in "Who's Who"

IN AN ANALYSIS by profession of the members of the present Congress—84th First Session—made by the Library of Congress Legislative Service, one member of the Senate and one member of the House are listed as engineers—this out of a total of 531.

In the 1950-51 issue of "*Who's Who in America*" (the last volume for which a vocational index has been provided) there are listed about 1,100 engineers who in their correspondence with *Who's Who* asked for this designation. In some minds these particular engineers would be rated as the very top echelon of American engineering. There are in the U.S.A. about 400,000 men and women calling themselves engineers or actively practising in the field. So it is admittedly difficult to appraise the significance of the listing in *Who's Who* of less than three tenths of one per cent of this total, no matter how meticulously the selections might have been made. Neither as to engineers, nor as to any other classification, appearing in this highly esteemed publication, have norms been set up which being met insure the inclusion in its lists of any given individual.

IN order to see how those listed appraised themselves, both as to their engineering accomplishments and otherwise, I have had 110 (a ten per cent pilot study of those 1,100 persons who listed themselves as engineers) of these biographies analyzed. They were chosen quite at random from good-sized cities and small towns located in the eastern part of the United States, the Middle West, and the Far West. *Who's Who* assures me that the questionnaire sent to those whose listing is under consideration specifically asks for details of civic and related activities. The biographical sketches prepared from these data always include mention of these non-engineering activities themselves and/or the top position held in connection with them.

In making this analysis I have omitted all military service and membership in social organizations such as the Masons, Shriners, Elks, American Legion and Knights of Columbus, as well as in academies, foundations, associations, institutes, and societies where dues-paying signifies the interest.

Without claiming anything approaching mathematical accuracy, among the 110 names of these supposedly outstanding engineers, there were found 30 with a clear record of some community service, whether confined to a single line such as "Boy Scout work" or of a more varied type.

But among these same 110 names there were found 69—or almost two thirds—who, while giving a more or less detailed account of their technical work, made virtually no mention of any community activity or interest. The remaining 11 names among the 110 con-

stituted a median group either not indicating any continuing interest in community activities; or showing solely an interest in business associations such as chambers of commerce; or indicating an isolated public activity extending over a short period such as occasional service as arbitrator under national or state arbitration agencies. It is significant that only one of these 110 rather conspicuous engineers mentioned any social interest or activity international in character.

Answer Is Simple

THE ENGINEER, if he wills it, can be the master builder in the civilization that will eventually emerge from the flux and chaos of the present day. But this can happen only as the engineer takes on a social-mindedness which makes him see his specialized technical task as only a part of the total picture—a part having thrilling quality and proportion. Engineering, to seize its marvelous opportunity, must get out of the glorified gadget, materialistic, and separatist stage and become a towering part of humanity's incessant struggle for plenty, for peace, and for spiritual values. "Engineers must be alert to world conditions and have a thorough understanding of mankind's hopes and aspirations" was part of a statement made recently by T. Carr Forrest, Jr., past president of the National Society of Professional Engineers.

Even for such voluntary, and usually uncompensated, civic service an apprenticeship is required. As C. S. Mackenzie said in his Roy V. Wright (ASME) lecture, we must outgrow the well-nigh universal attitude among engineers that by virtue of their training they can serve acceptably in a wider range of public causes without preliminary practice on the lower rungs of the public-service ladder.

Our goal would appear to be development to the point where the largest possible percentage of professional engineers have what might be called civic *cum laude* status. This means that they will have had a hand—and one involving some sacrifice in time, leisure, and possibly money—possibly international in scope.

The engineer's blueprint is an ever more widely used device. But it must bespeak socially conscious and spiritual content to assure to our profession of engineering a dominant position in the evolving civilization. ■

The Responsibilities Of Management —Your Challenge

by E. F. Pierson
Chairman of the Board
The Vendo Company
Kansas City, Missouri

IN LOOKING AHEAD with you to even greater achievements from S.A.M and to growth in and services to the community, I would like briefly to explore the responsibilities of management, and to raise some questions for your consideration.

There's an old saying that ideas never work unless *you* do.

Ideas alone are not enough. The final responsibility of management men is to combine work planning with work doing. You as management men must provide the know-how, the strong leadership and the "brass tack" methods which will make your paperwork plans pay off.

There is a constant, pressing need for your best efforts. We are in a race for survival on all fronts.

The scientific accomplishments of the U.S.S.R. within the past year have staggered the imagination. They are the crowning achievement of Russia's program of planned progress toward supremacy. But the scientific program cannot stand alone. If it is to be ultimately successful, it must be integrated into the whole economy.

In this country there is increasing emphasis on science. There is much to be said for implementing our national scientific program with every means at our command. But the race is not on the scientific level alone. It is in every field, in every area.

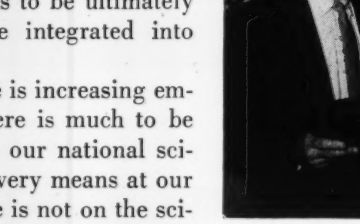
Your task as management leaders is to stimulate achievements which will strengthen our country and give it added power. Only a strong total economy can support and continue to develop the system of free enterprise which is the basis of our life today.

Each of us participates in and benefits from the American system of free enterprise. American free enterprise has resulted in the highest standard of living in the entire world, and one of its most significant achievements is its great system of mass production.

Let us make no mistake about mass production. Mass production is not a result of *mass* thinking, but of brilliant *individual* thinking—creative, tradition-shattering thinking by individuals who have learned how to work together for the good of all.

The thinking and the work which resulted in what we call mass production were inspired by furious competition. Competition can be a healthy and a beneficial thing, we have learned, but the enormity of the competition which we see ahead of us today is something to give us pause.

It has become a popular idea that hard work is out of date. We constantly hear such expressions as "Don't work



E. F. PIERSON (right), receives the annual award of the Kansas City chapter of the Society for the Advancement of Management, for contributions to management, from HOWARD DEARBORN, S.A.M chapter president. Mr. Pierson, chairman of the board of The Vendo Company, world's largest manufacturer of automatic merchandising equipment, is a director of the United States Chamber of Commerce, a former director of the National Association of Manufacturers, a former president of the National Automatic Merchandising Association, and an active supporter of numerous civic and cultural activities.

too hard" or "Take it easy." Leisure is a cult; recreation is providing the means for a booming industry.

But hard work can never be out of date. Whatever has been achieved by this country has been because of hard work, and whatever is to be accomplished in the future will be because of hard work. Instead of taking it easy, we need to increase our efforts, sharpen our wits, put more "meat" into the working day.

Leadership is never a static thing. Problems change, techniques improve, the balance of power shifts with alarming rapidity. Today the world shares our knowledge of production methods. American production is being copied and modified in every part of the globe. And when our techniques and our know-how are also duplicated—as they have been in some areas—then we have real competition in the market place.

WE have no choice but to share our economic gains—to give the world our hard-won knowledge in order to achieve a balance of development which will permit reciprocal trade. However, we must protect our position by intensified work, by new achievements in new fields, by constantly pressing on toward new goals.

And more important than any natural resources—more important than favorable geographical location, productive land or great native deposits of essential minerals and metals—are the resources of our people. It is because of the work and the decisions of the people that this country will stand or fall.

In manpower we are dramatically outnumbered by the Asiatic countries. Russia has an estimated population in excess of 200 million persons, compared to our 170 million population. The U.S.S.R., China and India together have a staggering 1.2 billion people. We are outnumbered six to one in these countries alone.

These millions of people are hungry for recognition, hungry for achievement, hungry for a bigger slice of world wealth. They have proved their ability to make progress not only in scientific accomplishments, but in many other areas. Illiteracy has been virtually eliminated in Russia. Education receives unlimited support. The achievements of these peoples by any standard are tremendous.

The economic and cultural revolution in Asia surges forward. India is in the throes of great political and economic changes. China is being torn asunder under the whiplash of progress. Young people in these lands are seeking new ways, new answers to age old problems. I recently attended a graduation ceremony at a Mid-Western university where top honors went to Hawaiian students of Chinese parentage. In our highest ranking universities and colleges, exchange students from foreign lands are making outstanding records. There is no doubt about the ability and the capacity for hard work on the part of these young intellectuals. Often they take back to their own countries the best of the Western world, the cream of all we have to offer.

And so our path becomes clear. We must forge ahead. We must push out the horizons of our existence. We must combat the deadly trend toward "taking it easy." We must each do our individual best to advance the new age of American achievement.

Each of us must ask himself "How can I be most effective in my particular work?"

In the long run it will not matter whose payroll you are on. You are working for yourself, and you will gain the most from your success. Henry Ford once said that thinking is the hardest work there is, which is probably the reason so few engage in it. Yet your thinking as a management leader should not stop with a good idea, but should carry through all phases of its development.

What will be the result of your planning in terms of the cost of your product or service? What does each step involve in man-hours, in materials, in direct labor costs?

All of your thinking as management men must be directed toward the product you are selling, and its acceptance by the customer. When too many costs are loaded on, we must increase the price of our product. Our operations must be trim and clean. We must operate at a profit—that is the inescapable law of economics.

How much do you know of your community . . . your nation . . . and the national trends which are shaping up? The best plans in the world are no good if they are twenty years out of date. We are in fast company, and it is getting faster all the time.

How well do you know the people who will carry your plans through? How well do you know their capacity, their resources, their talents? Can you single out exceptional ability and put it to full use? If you can, you have a priceless gift. The human element will always be more important than the manufactured element, and this is your special area of achievement and reward.

And finally—how well do you communicate your ideas? Can you "get across" your own enthusiasm? Can you sustain confidence through good and bad periods? Can you "sell" the benefits of a long range program of improvements?

In the final analysis, gentlemen, you must not only plan brilliantly, you must execute brilliantly. That is your challenge and your responsibility in the exciting years ahead. ■

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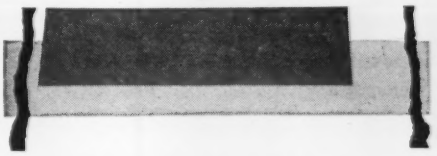


Labor Mediation—Tool Or Weapon?

by George Bennett

Federal Mediation & Conciliation Service
Boston

LABOR mediation is a function of the Federal and State governments, proffered under the existing Federal law, to provide assistance to management and labor when a contract dispute arises. The law intends that mediation shall provide both parties with the means of settling peacefully any crisis that may develop during contract negotiations. That being true, is it possible that such a constructive function, intended to assist in resolving difficult situations, could be so misused that it might become a factor to provide further conflict? Initially, the mediator would seek to prevent that from happening. The purpose of this article is to point up the constructive use of labor mediation by the parties so that there need be no concern about a negative application of the mediation process.

Section 203(a) of the Labor Management Act of 1947, as amended, states that it is the duty of the Federal Mediation and Conciliation Service to assist parties involved in labor disputes to settle their differences through mediation, if the disputes cannot be settled otherwise by the parties involved. Section 204(a) requires that employers and employee representatives participate fully in meetings undertaken by the Mediation Service, to aid in the settlement of their disputes. Section 8(d) of the Act requires that the party seeking to alter an existing labor agreement provide the Mediation Services with a 30-day notice of the intended change.

It is clear, then, that the existing law of the land calls for mediation to assist and prevent or minimize labor crises, and aid the parties in conflict to settle their disputes. Putting it in different terms, labor mediation is a *tool*, made available to the disputants in the public interest, for their use as an aid in the maintenance of labor peace. Let us look first at the nomenclature of the mediation tool. What constitutes a good mediator?

The effective mediator possesses certain characteristics common to all mediators, though naturally in varying degrees. First, the mediator must be a good listener, and he must be attuned to listen with understanding, to be able to comprehend how the party feels about the issues by transferring himself to that party's frame of reference. This does not imply that the mediator must agree with the party's point-of-view; it simply means the mediator must understand it.

Not only must there be a comprehension of how the *individuals* involved feel, but the mediator must be able to recognize and understand the issues and classify them apart from other matters that invariably come up during these negotiations. The terms used in labor-management relations have their own meaning, for we have here a special language. Mediators come to know the terms by constant contact with them. It further helps to comprehend what is taking place at the bargaining table by keeping abreast of other negotiations, settlements, business conditions and trends.

The mediator must use tact. A tactless mediator is no mediator—or not for long! Tact is a natural trait, not easily acquired or learned. In mediation of a dispute there comes a time when there is a need to press forward with an idea in a climate that is frozen on dead center, but how and when the mediator does this are of critical importance. Timing goes hand-in-hand with tact, and the best idea in the world, forwarded at the right time, will have no chance of acceptance with a tactless approach.

The mediator must be enterprising. Every dispute has its answer somewhere, some time, and the mediator wants the parties to find it at the earliest possible moment. It is generally accepted that people will ultimately find the solution to a problem by their own efforts. The tool of mediation is available to the disputants to help them find that solution as soon as possible.

MR. BENNETT has served with the Federal Mediation and Conciliation Service since 1950, leaving the U.S. Labor Department Solicitor's Office to join the mediation service. Mr. Bennett received an AB degree from Harvard in 1938, an LLB degree from Boston University Law School in 1947 and an LLM degree from Yale Law School in 1949. He became an instructor at the University of New Hampshire after serving with the U.S. Army Air Force from 1942-46. He left the New Hampshire University teaching assignment to join the Labor Department.

The mediator must have courage. The arena of dispute and frustration is no place for the faint of heart. That applies to all the participants, not only to the mediator. It is the duty of the mediator, on behalf of the public, to provide his services to overcome the crisis, and he must be prepared at all times to test avenues and approaches even though the way be rugged and rough. A facet of this characteristic is optimism. Along with his tenacity, the mediator must approach each issue with an air of certainty that an answer will be found. The most dangerous situation is that in which there is a pervading feeling that a strike is inevitable.

THESE characteristics, briefly described, are some of the qualities that go to make up the tool of mediation. The tool is there to be used by both parties, designed to keep open the channels of communication and exchange. Properly employed by the disputants, there is here a most productive process, one that can materially assist the parties in their quest for an agreement. Could mediation ever be so misapplied by the parties that it could be something other than constructive? Could an affirmative process of listening, understanding, modifying and testing approaches, coupled with courage and optimism, be so abused by the disputants that it could be turned into a useless process?

The record shows that they cannot. Nevertheless, certain observations are necessary to make certain that it never does happen. For it must be admitted even the best of procedures could be so prostituted as to render them totally inadequate, and participants in the field of labor-management relations must ever be alert to maintain the mediation process in its most useful light.

What are the key factors? Initially, mediation is aware of its responsibility in labor-management disputes, even though mediation is not involved to the same degree as are the disputants, even though the conclusion of negotiations does not affect it to the same degree that the parties are affected. Nevertheless, on behalf of the public, its every effort is designed to benefit every one concerned —management, labor and the general public.

In my opinion, the emphasis must be placed on the treatment accorded mediation *by the parties themselves,* for it is they who determine the nature and scope of mediation activity. First, the parties should not seek to gain an advantage for their position by the use of mediation. Mediation approaches each dispute with complete impartiality, and it will neither favor nor champion the position of one of the disputants at the expense of the other. The disputants must not seek to have mediation back their particular point-of-view for that could have dire consequences. Mediation itself must never become an issue in the dispute; if that happens mediation might become a weapon in the dispute rather than a tool employed to assist the parties to dissolve the impasse.

Second, the parties should accept the function of mediation and should encourage its use in all its aspects. After all, mediation is a voluntary process and the parties will be required to change neither their point-of-view nor their bargaining position because mediation is used. Mediation is a "friend of the parties," seeking only to assist them in their time of difficulty. Opposition to mediation might cause it to lose its character as a useful tool and cause it to be injected, against its will, as an element in dispute. Under such conditions, sound judgment would probably dictate that mediation be withdrawn from active participation, thus closing off an important channel of communication. On the other hand, acceptance of the function means that mediation can go forward, usefully and constructively assisting the parties to eliminate the deadlock.

Next, mediation should not be wielded as a threat by one party against the other. Mediation imposed as a threat is a destructive and dangerous force. For example, if one party were to say, "Look, if you don't stop these refusals and delays right now, we will have to put this in the hands of mediation." you can imagine the acceptability of mediation under such conditions. Such an approach would constitute a sledge-hammer use of mediation, and the mediation tool, under such circumstances, would have little chance of helping the parties resolve their difficulties.

To use mediation only at the last moment, or even after economic pressure has erupted in strike or lock-out action, would not be conducive to an orderly solution of the dispute through mediation and conciliation. Its use under such conditions would only blunt the tool and render it less effective. The lines would have been irrevocably drawn before the tool of mediation could properly have been brought into use. Though it is true that not all mediation sessions end in settlement, the law intends that the public interest be brought into play before such irrevocable action has been taken. Even though mediation actively enters labor-management disputes after an actual impasse has developed, it is generally prior to the occurrence of strike or lock-out action, while there is still sufficient time for the mediation tool to be brought into play. When there is time, the parties can employ the tool in an orderly and constructive manner, with a chance of success.

Further, to keep mediation in the dark about possible plans and developments, providing it only with a smattering of data and information, would render it less effective. Mediation constantly strives to determine the limits of the dispute, and accurate knowledge of policies, plans and positions is necessary to that function. Not for mediation's own edification, but to promote progress towards a settlement. Cooperation with mediation, to the end that it is applied in the most promising direction, will result in use of the mediation tool at its highest potential.

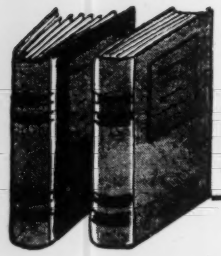
My conclusion is that labor mediation is a *practical* tool in the hands of people who know how to use it. The general acceptance of the Mediation Services, State and Federal, bears that out. Nevertheless, it is good policy, from time to time, to stand back and evaluate the mediation tool, so that it can be made ever more effective. Certainly we all want peace and prosperity; none of us gains from labor-management disputes and loss of income. To the end of constructive settlements, mediation continually sharpens its skill by a constant refinement of the basic techniques involved, and that results from mediation's full use. Living as we do in a world of development and change, the efforts of all of us must be directed toward finding fruitful and positive solutions of our differences.

The tool of mediation is designed to do just that. ■

Apologies to President Carroll and Professor Fischer!

In the August 1958 issue of ADVANCED MANAGEMENT **we inadvertantly omitted the name of Professor Harold Fischer, S.A.M Vice President of University Chapter Division, as author of the** Tribute To Phil Carroll, **which appeared on page 20. The photograph accompanying the tribute is that of Professor Fischer.**

(See page 9 for details of Regional Incentive Plan.)



New Management Writing . . .

S.A.M BOOK SERVICE

All books reviewed or listed in this department may be read or bought under the AMLS Plan, at less than publishers' list price. Use Order Form below.

GENERAL MANAGEMENT THEORY AND PRACTICE

A-33 THE ESSENCE OF MANAGEMENT — Mary Cushing Niles. 368 pp. Harper. 1958. $6.00.
A comprehensive interpretation of modern management theory and practice. Prepared originally as an effort to explain the elements of the American approach to management to interested people in India and Japan, the result was so successful that it was clear that the book filled a major gap in the literature of management in the United States itself. Written by one of the "grand dames" of the scientific management movement in clear and forceful style.

A-34 SELECTED READINGS IN MANAGEMENT—Fremont A. Shull, Jr., editor. 400 pp. Irwin. 1958. $5.95.
A collection of outstanding short writings on all aspects of management philosophy and function. The book includes not only some of the classic statements of management theory like Chester Barnard's discussion of informal organization and Ordway Tead's essay on organization aims, but includes some of the most recent "break throughs" in management thinking to come out of the work of the behavioral scientists. Altogether this book is ideal deskside reading for anyone in a management position.

A-35 MANAGING GEOGRAPHICALLY DECENTRALIZED COMPANIES—George A. Smith, Jr. 197 pp. Harvard School of Business Administration. 1958. $3.50.
The first thorough analysis of an increasingly important and especially complex management problem — the balance between centralized guidance and decentralization of authority in companies which have activities spread over a wide area. The book is based on the experiences under varied organization patterns of a sizable number of companies that conduct such dispersed operations.

A-36 MANAGEMENT AND ORGANIZATION—Lewis A. Allen. 364 pp. McGraw-Hill. 1958. $7.00.
A broad-gauged consideration of the elements in sound business organization and their relationship to effective management. Gives specific guidance on both principles and practice of making organizational changes and analyzing existing organization in terms of its suitability to its purpose.

MANAGEMENT TOOLS AND TECHNIQUES

B-68 JUNIOR BOARDS OF EXECUTIVES — John R. Craft. 184 pp. Harper. 1958. $3.50.
A rounded examination of a management and executive development device which was started by a few progressive firms a few years ago and has now been adopted by a significant number of large companies. By giving junior executives an opportunity to participate in discussions of major policy decisions, this device not only provides first class training for increasing responsibilities but provides a source of new approaches and ideas which otherwise would not be available.

B-69 DEVELOPING EXECUTIVE SKILLS—Harwood F. Merrill and Elizabeth Marting, eds. 431 pp. AMA. 1958. $9.00.
An up-to-date revision of a major review of company practices and principles on all types of executive development programs. The first edition of this book was published in 1952 and was a landmark in the growing movement toward specific programs of management development.

B-70 RESEARCH MANAGEMENT—Charles M. Burrill, ed. 256 pp. Interscience. 1958. $7.50.
The first publication of the Industrial Research Institute, this book gives guidance on a specially complex management area of growing importance.

B-71 BUSINESS ELECTRONICS REFERENCE GUIDE—Peggy Courtney, editor. 576 pp. Controllership Foundation Inc. 1958. $15.00.
A complete compendium of relevant facts on business use of electronic computers and electronic data processing systems. Lists the specific types of installations used by hundreds of particular firms; catalogs available machinery; provides a complete bibliography of periodical and book reference materials in the field; and describes available training courses and services related to electronic data processing. This is the fourth compendium of this type published by the Foundation. It is up-to-date through January 1, 1958.

B-72 CONSUMER BEHAVIOR — Lincoln H. Clark, editor. 469 pp. Harper. 1958. $6.50.
A valuable compilation of reports on recent research studies of consumer reactions to various types of products and presentation techniques. The papers included were prepared for two conferences sponsored by the National Bureau of Economic Research.

B-73 SCIENTIFIC PROGRAMMING IN BUSINESS AND INDUSTRY — Andrew Vazsonyi. 493 pp. Wiley. 1958. $13.50.
A thorough and up-to-date discussion of the applicability of the operations research technique of programming to specific business problems such as production, inventory control, transportation and pricing. Written for the management man who is interested in the applications of these techniques to the making of business decisions.

B-74 EFFICIENCY IN GOVERNMENT THROUGH SYSTEMS ANALYSIS—Roland N. McKean. 346 pp. Wiley. 1958. $8.00.
A major new study of the applications of systems analysis techniques to governmental problems. Takes water resource projects as a illustrative field and demonstrates how the approaches of operations research and systems analysis can give guidance on the relative significance of alternative projects and alternative ways of handling specific projects.

B-75 U.S. INDUSTRIAL RELATIONS—The Next Twenty Years. Jack Stieber, editor. 215 pp. Michigan State University Press. 1958. $5.00.
A series of thoughtful reports on the future roles of labor, management and government in the United States; the prospects for wages and hours; and prospective developments in "fringe benefits" and social security measures. The statements included were prepared by outstanding experts in the specific fields covered.

PERSONAL DEVELOPMENT

C-23 ESSAYS ON INDIVIDUALITY—Felix Morley, ed. 270 pp. University of Pennsylvania. 1958. $5.00.
A collection of outstanding essays centering on the question of how to maintain one's personal integrity and individuality in the face of current pressures towards conformity in actions and ideas. Contributors include John Dos Passos, Joseph Wood Krutch and William M. McGovern.

THE WIDER VIEW

D-32 PRIVATE INVESTMENT: THE KEY TO INTERNATIONAL INDUSTRIAL DEVELOPMENT — James Daniel, ed. 293 pp. McGraw-Hill. 1958. $5.00.
In October, 1957, several hundred top businessmen and government officials from all over the free world gathered in San Francisco in a unique conference on what private enterprise could contribute to international economic development. This book is a collection of the statements made by dozens of leaders, starting with Vice-President Nixon. The book points up the vital importance, not only to the free world's progress but to the very survival of a free way of life, of greatly increased private investment overseas and describes the difficulties and obstacles and what needs to be done to overcome them.

D-33 FRONTIERS OF SCIENCE—Edward Hutchings Jr. and others. 368 pp. Basic. 1958. $6.00.
A highly thought-provoking series of essays by eminent scientists on where science is heading and its implications for human knowledge, control of our environment, and human welfare.

D-34 MATTER, EARTH AND SKY — George Gamow. 604 pp. Prentice-Hall. 1958. $10.00.
A wide-ranging review of what we know about the nature of matter, the earth and the universe. Written by a well-known scientist who is particularly adept at making these highly technical fields interesting and understandable to the layman.

D-35 THE COMPUTER AND THE BRAIN—John Von Neumann. 96 pp. Yale. 1958. $3.00.
A brief but brilliant analysis of the relationships between the human nervous system and the modern electronic computer. Written by the late scientist member of the Atomic Energy Commission.

D-36 THE DECLINE OF THE AMERICAN MALE—Editors of Look. 66 pp. Random. 1958. $2.95.
A penetrating, witty, and thoroughly devastating portrait of the subjugation of that once-proud creature—the male American. Shows how he is dominated and supressed by women, his job, and the pressures of conformity—and how he got that way. After reading this report it hardly seems safe to ask the classic question: "Are we men or mice?"

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D-37 THE REPRESENTATIVE REPUBLIC — Ferdinand A. Hermens. Notre Dame U. Press. 1958. $7.50. A thoughtful declaration of faith in the merits of a democratic system of government and its ability to overcome threats from any direction. Written by an outstanding student of government theory and practice, the book describes the workings of representative government in many countries and points out strengths and weaknesses.

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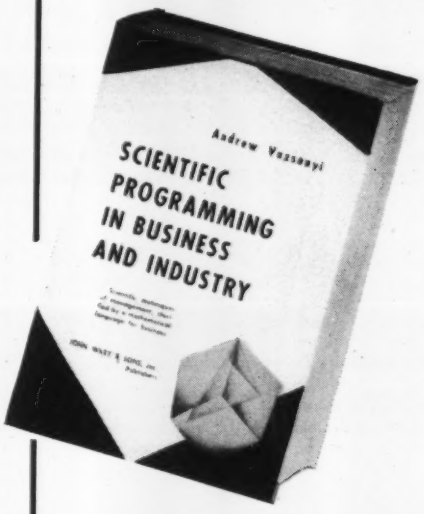

By ANDREW VAZSONYI, Alderson & Sessions, Philadelphia

Here's a book written especially for management. Keeping mathematics and theory to a minimum, it tells you what scientific programming is, and why it is important in business and industry. Explains the new techniques—operations research, linear programming, statistical decision theory, etc.—*in terms of business.* After presenting the fundamentals, the book illustrates, by means of actual case histories, the use of programming in solving management problems associated with production, allocation, and servicing.

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EFFICIENCY IN GOVERNMENT THROUGH SYSTEMS ANALYSIS

With Emphasis on Water Resource Development

By ROLAND N. McKEAN, The RAND Corporation, Santa Monica, Cal.

Focuses attention on possibilities of increasing economic efficiency in public investment and operation through the application of economic theory to governmental problems of choice. Uses principles of systematic analysis in comparing alternative water-resource investments, and surveys the opportunities for applying such analysis to other governmental activities. A RAND Corporation Research Study. Publications in Operations Research No. 3.

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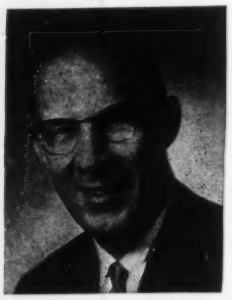
S. A. M *Newsletter*

Current news of interest to all S.A.M Members, specifically for the 900 Chapter and National Officers of the Society.



HAROLD R. BIXLER
Executive Vice President

UNIVERSITY CHAPTER DIVISION REACHES NEW HIGH — Under the leadership of Vice President HAROLD FISCHER, the University Chapter Division moved forward during the year in realization of its goals for new chapters and increased membership, as well as in the rendition of enlarged services to education, industry, and the Society. One hundred and thirty-five Chapters operated this year, in which over 10,000 total students were enrolled during the academic season. Foundations have been laid and preliminary work has been completed for the initiation of additional Chapters during the Fall.

Graduate students are cordially invited to continue their S.A.M membership and participate in available Senior Chapter Activities. They may enroll at the special fee for the first year following graduation or military service.

BUSINESSMEN IN GOVERNMENT — S.A.M cooperated with the Harvard Business School Club of Washington, D.C. in the survey for the recent report "Businessmen in Government". The study was made in relation to General Eisenhower's Presidential Appeal: "I am going to get the best brains in the country, the best executive talent, the widest experience and put them to work for the nation". It has been completed under the direction of DR. WILFORD L. WHITE of the Small Business Administration, and reflects the experiences, reactions and difficulties in obtaining businessmen of top talent to serve the government. JAMES A. BARKER, President, Harvard Business School, Washington, D.C. says to S.A.M "We are deeply appreciative to you and to your associates for your extraordinary help in supplying to us some 3500 names of businessmen who had never served in the government. As you know, we sent questionnaires to these men, and we got many valuable and good responses to these questionnaires. It forms a significant part of our study. We are truly indebted to you for making our analysis of this group of businessmen possible. We appreciate the gracious friendship that you extended and the help you gave in every respect. I hope that some day we may have the opportunity, in part at least, to repay your kindness." Write to him for copy of this most worthwhile publication.

SELECTED REFERENCES — MANAGEMENT PUBLICATIONS — Chamber of Commerce of the United States, Washington, D.C., — Survey covering the responses of 80 National Trade and Professional Associations regarding the Business Outlook. This confirms that if the recession does not pick up it will stem mainly from businessmen's fears and timidity. . . . National Association of Manufacturers, 2 East 48th St., New York 17; "Code of Ethical Standards". In this connection S.A.M Vice President SAM BURK says "S.A.M activities in the field of Industrial Relations have been targeted toward achieving a better understanding and acceptance of the basic principles of personnel administration and labor relations. In planning conference programs and Society publications we have tried to emphasize principles and policies as against procedures and practices. When technical case histories have been used we have encouraged authors and speakers to use these presentations to indicate how principles may be practically adapted to individual problem situations. We believe that industrial relations will achieve professional standing only to the extent that its practitioners recognize, accept, promulgate and promote a sound philosophy based on a body of principles that are evidenced in practical applications." . . . U.S. Department of Commerce "Distribution Data Guide", covering over 100 selected current materials of value to those marketing and distributing our Nation's goods and services. . . . Investment Information Services and Sources — A significant bibliography available from the Business and Technological Sources Bulletin of the Cleveland Public Library, Cleveland 14, Ohio. . . . Area Manpower Guidebook, just published by the Bureau of Employment Security, LEWIS D. BARTON, Chief Industry Relations Branch. This provides basic manpower information concerning 174 important labor market areas, their industrial characteristics, major sources of employment, occupational distribution of the labor force, long term labor market trends, and related items. . . . "The Automatic Office". A monthly management report on non-technical information for management concerning the concepts, methods and equipment of office automation. Available from Automatic Office Consultants, Inc., Ninth Floor, 5057 Woodward Avenue, Detroit 2, Michigan. . . . "Explain Your Business", from Business Relations Department, Chamber of Commerce of the United States, Washington, D.C. This contains authoritative reports by some of America's top employee and public relations executives on effective techniques for building a better understanding of the operation of business and the American competitive enterprise system.

HOW TO BE EFFICIENT WITH FEWER VIOLINS — Thanks to Harper's Magazine for the following report of a Management Engineer after a visit to a symphony concert:

"For considerable periods of time the four oboe players had nothing to do. The number should be reduced and the work spread more evenly over the whole of the concert, thus eliminating peaks of activity.

All 12 violins were playing identical notes; this seems unnecessary duplication. The staff of this section should be drastically cut. If a larger volume of sound is required, it could be obtained by means of electronic apparatus.

Much effort was absorbed in the playing of demi-semi-quavers; this seems to be an unnecessary refinement. It is recommended that all notes by rounded up to the nearest semi-quaver. If this were done it would be possible to use trainees and lower grade operatives more extensively.

It is remarkable that methods engineering principles have been adhered to as well as they have. For example, it was noted that the pianist was not only carrying out most of his work by two-handed operation, but was also using both feet for pedal operations. Nevertheless, there were excessive reaches for some notes on the piano, and it is probable that re-design of the keyboard to bring all notes within the normal working area would be of advantage to this operator.

In many cases the operators were using one hand for holding the instrument whereas the use of a fixture would have rendered the idle hand available for other work.

It was noted that excessive effort was being used occasionally by the players of wind instruments, whereas one air compressor could supply adequate air for all instruments under more accurately controlled conditions.

Obsolescence of equipment is another matter into which further investigation could be made, as it was reputed in the program that the leading violinist's instrument was already several hundred years old. If normal depreciation schedules had been applied, the value of this instrument should have been reduced to zero.

There seems to be too much repetition of some musical passages. Scores should be drastically pruned. No useful purpose is served by repeating on the horns a passage which has already been handled by the strings. It is estimated that if all redundant passages were eliminated the whole concert time of two hours could be reduced to 20 minutes, and there would be no need for an intermission.

The conductor agrees generally with these recommendations, but expresses the opinion that there might be some falling off in box-office receipts. In that unlikely event, it should be possible to close sections of the auditorium entirely, with consequent saving of overhead expenses, lighting, etc. If the worst came to worst, the whole thing could be abandoned, and the public could go to the movies instead." ■

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S.A.M-N.T.L Workshop In Leadership Development

THROUGH special arrangement with the National Training Laboratories, S.A.M is presenting a five-day Workshop in Leadership Skills. The Workshop is a condensed version of the three week course N.T.L gives each year at Bethel, Maine. A pilot Workshop held last April in Cincinnati was so outstandingly successful that a "repeat performance" has been scheduled for November 10-14, at the Treadway Manor in Asheville, N. C.

The "faculty" is composed of members of National Training Laboratories, an organization of social scientists from a number of our great universities who have formed N.T.L to pool their knowledge and coordinate research activities. One instructor is assigned to every twelve to fifteen participants, and total registration is limited to sixty. Registration, including tuition and all Workshop materials, is $200; room and meals are extra.

The S.A.M-N.T.L Workshop is unique in that participants learn from actual involvement rather than merely by listening to the speaker and asking questions. Included are General Sessions, Diagnostic Group Discussions, Case History Analyses, and Skill Practice Sessions on Leadership.

The Workshop is intended for experienced managers from the upper and middle levels of management — Presidents, Executive Vice Presidents, Division Managers, Departmental Managers, Plant Superintendents, etc. It is considered desirable for companies to select at least two participants, preferably representing both line and staff functions.

Registrations must be received at S.A.M Headquarters no later than November 1st, and will be accepted in order of receipt.

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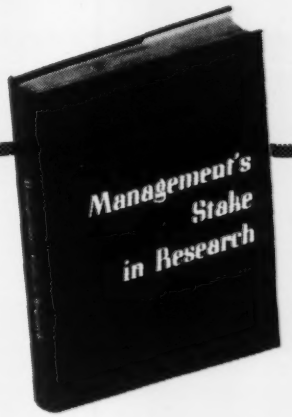

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Management today spends nearly $8 billion yearly for industrial research. For the first time, here is a book that undertakes to tell you what management should expect of industrial research — how to budget, finance and organize it, how to gear it to the market, how to appraise the results. The contributors include: O. C. Reohl, E. Duer Reeves, Ferdinand Eberstadt, Lawrence R. Hafstad, J. D. Porsche, J. E. Hobson, Luis J. A. Villalon, and Joseph W. Barker.

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